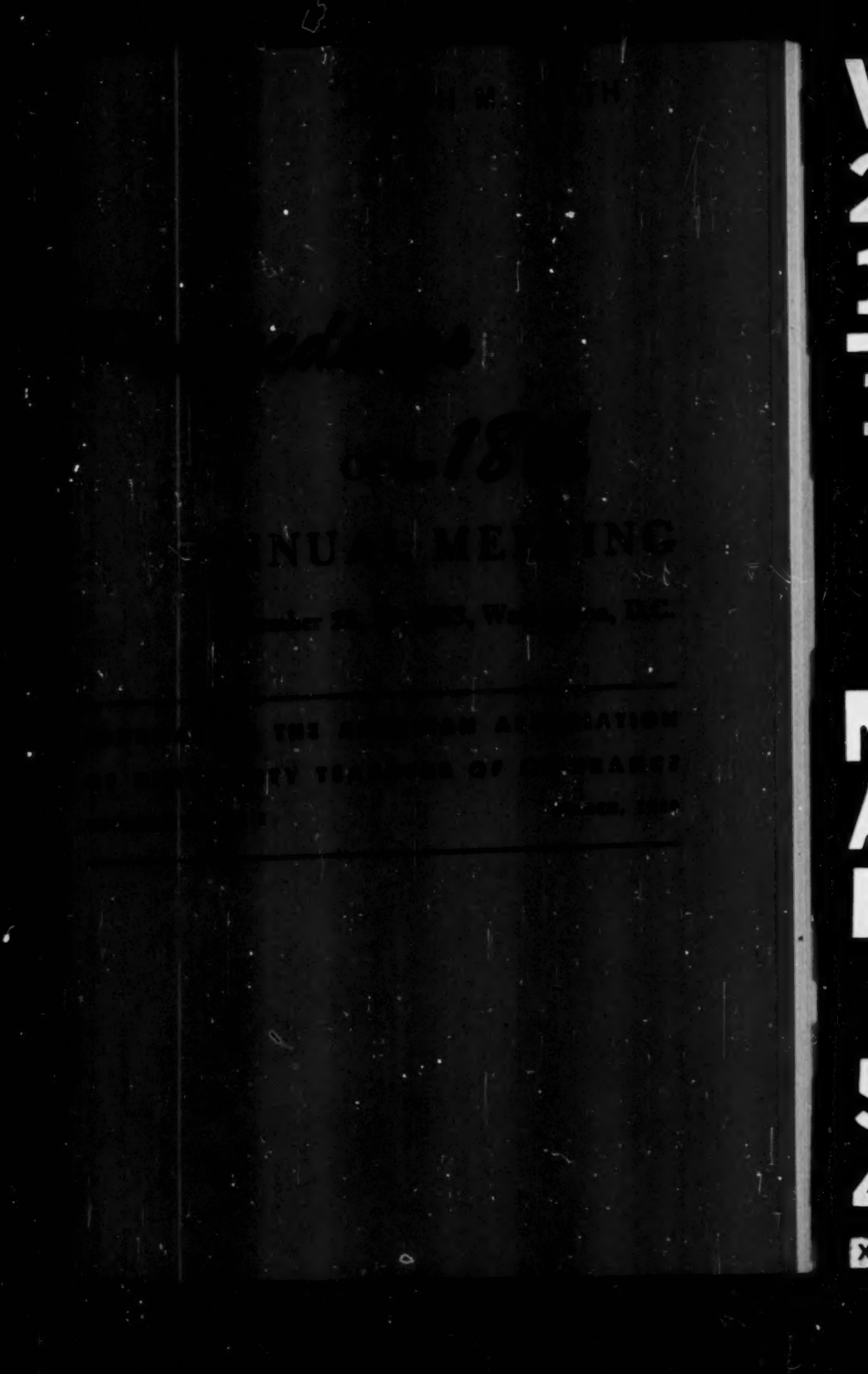

Proceedings

Of the *18th*

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Part I. Papers Read at Annual Meeting

The Basic Life Insurance Course in the Insurance Curriculum

DAN M. MCGILL,
Wharton School of Finance and Commerce

Objective of the Course

In discussions of this sort it is customary to make a distinction between courses aimed at the general student who will use the knowledge for personal and general business purposes and courses designed for the student who plans to make a career in the insurance field. In my own thinking, I have never attached very much importance to the distinction. In the basic course, I would teach both categories of students the same type of material. This follows from my firm conviction that at no level of collegiate instruction should the subject matter take on the characteristics of training materials. I suppose it is possible to teach the same set of facts from two or more points of view, but I question whether it is desirable at the level of a basic course in any field. In any case, this pedagogical issue is not involved in the basic life insurance course at the Wharton School since virtually all the students enrolled in the course are insurance majors.

Content of the Course

It is rather difficult to discuss the content of the basic life insurance course in the abstract. The composition of the course obviously is influenced by any insurance course that might precede it, as well as by any that might follow it. In some schools, of course, the basic life insurance course may be the only insurance course taken. In others, it may be preceded by a general insurance course, with varying coverage of life insurance, and followed by one or more advanced courses of life insurance. It would seem, therefore, that the most logical approach to the question of content would be through a presentation of the topics which should be covered in a course which is assumed to be the only academic contact the student will have with the subject of life insurance. Then the modifications that may have to be made because of curriculum overlapping can be indicated. The insurance curriculum of the Wharton School can serve as an example of the latter.

I would suggest the following list of topics for a life insurance course which is likely to be the only course in which the student is exposed to life insurance. It is a basic life insurance course in the abstract, if you please. It is based on the assumption that the course will be of one semester duration, with 45 hours of class instruction and three semester hours credit.

Introductory	4 hours
Monetary Value of the Human Life	1 hour
Needs Approach to Life Insurance	2 hours
Level Premium Theory of Life Insurance	1 hour
Contracts and Their Uses	8 hours
Term Insurance	2 hours
Whole Life Insurance	1 hour
Endowment Insurance	1 hour
Annuities	2 hours
Special Contracts	2 hours
Mathematical Aspects of Life Insurance	14 hours
Mortality Table	1 hour
Mortality Trends	1 hour
Premium Calculations	3 hours
Reserve Valuation and Management	2 hours
Modified Reserve Plans	1 hour
Nonforfeiture Values	2 hours
Nonforfeiture Options	1 hour
Surplus and Its Distribution	2 hours
Settlement Options	1 hour
Selection of Risks	3 hours
Factors Affecting the Risk	1 hour
Treatment of Substandard Risks	1 hour
Reinsurance	1 hour
Special Forms of Life Insurance	6 hours
Disability Insurance	1 hour
Industrial Life Insurance	1 hour
Group Life Insurance	2 hours
Government Life Insurance	2 hours
Legal Aspects of Life Insurance	10 hours
Fundamental Legal Concepts	1 hour
Legal Interpretation of the Life Insurance Contract	4 hours
Designation and Legal Status of the Beneficiary	2 hours
Assignment of Life Insurance Contracts	1 hour
Protection of Proceeds Against Creditors	1 hour
Duties and Responsibilities of Agents	1 hour
Total	45 hours

I would recommend that the topics be assigned in substantially the sequence which I have outlined. I have found this sequence to be very effective. You will find, for example, that the topic of the "Monetary Value of the Human Life" is a good interest arouser. It is particularly effective when followed by the "Needs Approach," since students exhibit a keen interest in the matter of how much insurance they should carry. In the monetary value discussion, effective use can be made of materials in Dublin and Lotka, *The Money Value of a Man.*

I would combine contracts and their uses with full appreciation of the fact that many teachers prefer to teach uses in advance of the discussion of contracts. I have found it unsatisfactory to discuss uses in the abstract before the students know one contract from another. I believe it is more effective

to illustrate the uses of a contract in conjunction with the analysis of the contract.

I have grouped under the heading "Mathematical Aspects of Life Insurance" all those features of a life insurance contract which derive their validity and significance from the actuarial assumptions underlying the contract. It does not mean that these topics are discussed primarily from an actuarial viewpoint. An effort is made, however, to trace the common thread of actuarial assumptions running throughout these provisions. I have allowed two hours for the topic of surplus and its distribution in order to permit a demonstration of the application of an actual dividend formula to specific policies.

The general topics of "Selection" and "Special Forms of Life Insurance" need no explanation. I might point out that under the topic of "Legal Interpretation of the Life Insurance Contract" I would discuss the application of the essential elements of a contract to the formation of a life insurance contract.

As intimated earlier, this proposed topical outline would have to be modified in many schools. It worked very well at the University of North Carolina where the general insurance course was not a prerequisite and, in any case, offered only ten hours of instruction in life insurance. It is not suitable, without drastic modifications, at the Wharton School where the general insurance course devotes three semester hours to personal insurance, including social insurance, and is required of all Wharton School students. Moreover, the basic life insurance course extends throughout two semesters, with two class meetings per week. Since many of the insurance majors also take "Life Underwriting," an advanced course, a real need for integration exists. I would think that any school which offers a well-rounded program of insurance instruction would have the same problem of integration. As an example of what the basic life insurance course may look like at a school which has integrated it with a prerequisite and an advanced course, I would like to present in summary form the topical outline of the basic life insurance course at the Wharton School.

INSURANCE 4—LIFE INSURANCE

Wharton School of Finance and Commerce
Fall Term

Review of Basic Principles	6 hours
Introductory	1 hour
Monetary Value of the Human Life	1 hour
Level Premium Theory of Life Insurance	1 hour
Types and Use of Contracts	3 hours
Mathematical Aspects of Life Insurance	14 hours
The Mortality Table	1 hour
Mortality Trends	1 hour
Compound Interest and Discount	1 hour
Net Premium Calculations	3 hours
Reserve Valuation and Management	2 hours
Determination of Gross Premiums	1 hour
Modified Reserve Plans	1 hour
Nonforfeiture Values	1 hour

Nonforfeiture Options .....1 hour
Surplus and Its Distribution.....2 hours
Legal Aspects of Life Insurance.....7 hours
Fundamental Legal Concepts.....1 hour
Capacity of Parties and Mutual Assent.....1 hour
Legality of Purpose and Consideration.....1 hour
The Incontestable Clause.....1 hour
Reinstatement and Reformation.....1 hour
Duties and Responsibilities of Agents.....1 hour
Waiver and Estoppel.....1 hour
Total Hours .....27 hours

Spring Term

Introductory . . . .1 hour
Annual Statement .....3 hours
Selection and Underwriting.....3 hours
Investment Policies, Trends, and Problems.....5 hours
Guiding Principles .....1 hour
Corporate Bonds .....1 hour
Government Securities .....1 hour
Real Estate and Real Estate Mortgages.....1 hour
Preferred and Common Stocks.....1 hour
Trends and Problems in Group Coverages.....9 hours
Group Life Insurance.....2 hours
Group Annuities and other Pension Plans.....6 hours
Group Accident and Health.....1 hour
Organization and Management of Life Insurance Companies.....3 hours
Regulation and Supervision.....3 hours
Structure of Regulation.....1 hour
Subject Matter of Regulation.....1 hour
Taxation of Life Insurance Companies.....1 hour
Total Hours .....27 hours

The first term of Insurance 4 is very similar to the earlier proposal for the basic life insurance course. Various topics omitted from Insurance 4 include the analysis of needs, settlement options, designation and legal status of the beneficiary, assignment, protection of proceeds against creditors, and special forms of life insurance. All these topics are covered in a general way in Insurance 3, the prerequisite to Insurance 4, while most of them are covered very thoroughly in Insurance 9, the life underwriting course, the first term of which is devoted to programming and in integration of the personal estate. All aspects of life insurance that relate to the beneficiary and the administration of insurance proceeds are treated in Insurance 9 and therefore omitted from Insurance 4. The second term of Insurance 4 is devoted to company operational activities and problems, a general topic which is not treated in any other undergraduate life insurance course.

No reference has been made to graduate courses in life insurance which follow the same general pattern of the undergraduate courses, at least at the Wharton School. As might be expected, the treatment of the topics is on a higher level in the graduate courses than in the undergraduate courses.

Text Materials

There are five life insurance texts which presumably could serve satisfactorily as the text for the basic life insurance course. I refer to the texts written by Messrs. Huebner, Maclean, Magee, Mehr and Osler, and Owen. I have taught the first three and feel qualified to evaluate them. I have scanned the other two but have never taught them. Since I believe that no one can judge the merit of a textbook until he has taught it, I do not consider myself qualified to comment on the Mehr and Osler text or on the Owen volume.

The Huebner, Maclean, and Magee texts are all excellent treatises. The Huebner text is the most elementary of the three and also the briefest. Whereas it could be used in the hypothetical course which I outlined, it is hardly appropriate for the Insurance 4 course at the Wharton School. It is used as the basic text for the first term of Insurance 3 where it serves admirably. In fact, it is ideal for a course of that type.

There is little to choose between Maclean and Magee. Maclean is more compactly written and reflects the precise terminology of an actuary. Magee tends to be verbose and his organization within chapters is not always the most logical, but his treatment of most subjects is extremely scholarly and comprehensive. If the book were condensed somewhat and its organization sharpened, I would unhesitatingly place it at the head of the list. Its treatment of the legal aspects of life insurance is so comprehensive that it need not be supplemented with Horne and Mansfield, as is necessary with all other texts. The teacher may find it desirable, however, to round out certain topics with assignments in the *C.L.U. Journal* or in the American Society of C.L.U.'s publication, *The Life Insurance Policy Contract*, which is a reprint of certain *Journal* articles on the legal aspects of the life insurance contract.

We are at present using Magee as the basic text in Insurance 4, supplemented during the second term with two other texts and collateral reading. We plan to use the Huebner Foundation volume, *Investment of Life Insurance Funds*, in connection with the investments section of the second term and a text which I have just finished, *The Fundamentals of Pension Planning*, for the section on pensions. The latter is in mimeographed form at the moment, but it should be in print by the fall of 1954. It is to be published by the University of Pennsylvania Press under the auspices of the Pension Research Council of the Wharton School.

May I repeat in closing that my failure to appraise the Mehr and Osler and Owen texts is not intended as a reflection on their quality; it in indicative only of my lack of familiarity with those books.

The Basic Life Insurance Course in the Curriculum

JOSEPH F. TROSPER, University of Tennessee

The basic, or first, course in life insurance may be approached from various points of view. The more popular approaches are: (1) The mathematical approach, (2) The consumer approach, (3) The life insurance salesman's approach, and (4) The life insurance company approach. The status of the students who come into the course and the responsibilities felt by the instructor may justify using any of these approaches. In fact, it is not uncommon for some combination of these concepts to be used.

Each one of us who teaches on the college level should periodically make a critical examination of his philosophy or approach to the basic life insurance course. And, as we develop or revise our approach to this course, I think we *should be guided* by the *objectives* and *standards* of our respective colleges. As I understand the objectives and standards of degree granting collegiate schools of business, no one of the approaches named above is adequate, because each takes a narrow producer or consumer point of view.

I try to develop an attitude or understanding on the part of the student rather than a skill. While certain facts must be picked up by the student in any basic course, I think stress should be placed on educating the student, not training him. In other words, the reason for the fact is more important than the fact. Similarly, the relationships of facts are more important than the facts. I feel obliged to stress relationships within the life insurance field as well as the relationships between life insurance and law, finance, marketing, management and other related areas.

More or less exact descriptions and illustrations of methods or techniques must be comprehended by the student, but those should not be an end within themselves. I think the teacher should emphasize and demonstrate the extent to which the method or technique under consideration conforms to the theory and principles underlying the life insurance device.

The teacher should emphasize that life insurance is an economic device for dealing with particular economic needs in a free enterprise society. While the policy contract is a legal instrument, the life insurance device is an economic institution. It is the economic concept with which we are principally concerned. The student should be made to appreciate that each policy is designed to meet a different situation and that the proper policy and terms can be determined only after an examination of many considerations surrounding the family or business situation.

When dealing with the contractual provisions of the life insurance policy, the student should be led to appreciate the extent to which each of them furthers the mutual purpose of all concerned. The *need* for each provision should be viewed from various angles, that is from the social, psychological, financial or other appropriate aspect. The *effect* of each provision should be examined from the standpoint of the individual, the insured group, and society.

Through a presentation of significant thoughts and ideas the teacher should lead the student to appreciate that every development came about for

a reason. By a challenging attitude on the part of the teacher, an inquiring attitude should be aroused in the student. The instructor should be a "starter" or "beginner" of the student's interest in life insurance, but never an "ender" of it. While the basic course must have balance and be a complete unit, the instructor must guard against leading the student to believe that he has "wound up" or completed his study of the subject.

This philosophy or point of view which I have been trying to explain might be called an *inquiry approach*. It is an approach in which the teacher must assume constantly the same inquiring attitude which he is trying to develop in the student.

I believe this *inquiry approach* is superior to the others mentioned at the beginning of this paper for several reasons. First, either of those approaches gives a distorted concept of life insurance, while this one gives a broad view. Second, this approach trains the student to look for problems which are yet to be solved rather than be satisfied with learning what has already been accomplished. Third, I find that this approach sparks greater interest and enthusiasm on the part of the students. And, fourth, my own enthusiasm for the course is kept high.

Text Books. I was also asked to say something about the text books available for the basic course in life insurance. If we were discussing the advanced course, I would have much more to say about this issue. Furthermore, if I had been asked to give this same paper four or five years ago when I first began teaching the life insurance course, I would have had plenty to complain about, because at that time I was a strong advocate of the consumer approach. There was no text with the kind of emphasis I was seeking.

After trying about all the texts in the field, I have returned to "my first love," the Maclean book. The explanatory material is quite clear. I think this text covers all the appropriate topics. Furthermore, the author scatters throughout the text more of the unsolved problems encountered by the industry than any other author. I might say that I don't expect a text to pose many of the questions which make up the *inquiry approach*. With this approach the particular questions which seem appropriate for the class lecture or class discussion depend largely upon the attitude and background of the teacher. In fact, I find that the particular issues which I bring to the attention of the students are still in a state of flux, consequently, they vary considerably from one quarter to the next.

Course Length. As for the length of the course and the hours of credit allowed, regardless of whatever is considered ideal, we who are in university teaching must temper that ideal by the circumstances and conventional practice at our particular university. Some of you teach under the semester system, in which case approximately 16 weeks are available. Others of you, like me, are under the quarter system, which limits the course duration to 10 or 11 weeks. A second limitation I must face is the fact that at the University of Tennessee we have no classes in the School of Business which meet more than 3 hours per week. I am limited, then, to not more than 33 class hours of instruction. When periodic examinations are accounted for, this total is reduced by another two hours. I suppose there are others here who have experienced somewhat the same frustration which has been my lot under the quarter system. There just doesn't seem to be enough time to do an adequate job. Under such circumstances one may *brush over* the gamut of topics in a

typical text, or he may pare down the course content to treat more thoroughly that which is studied. I prefer the latter alternative.

I believe that the ideal length for the basic life insurance course is somewhere between 45 and 55 class hours. This would mean that the class should meet 5 times a week under the quarter system or 3 times a week under the semester system. Of these two, it seems to me that the 3 classes per week under the semester system is to be preferred, because my experience with the class which meets daily during the summer session has led me to have some misgiving as to the student's retention of the subject matter in 5-day courses.

Credit Hours. Convention seems to be the principal reason that the number of college credits carried by a course should equal the number of class hours per week. But I am afraid that this is a commanding practice. You can imagine what would happen to enrollment in your life insurance course if it carried fewer credit points than the number of classes per week. On the other hand, you would find it hard to convince the other members of the faculty that your course should carry a larger number of credit points than the number of class hours per week.

To my way of thinking the important thing is not this relationship at all. The legitimate basis for college credits should be the level of the subject matter being taught. In other words, a course is worthy of college credit if it measures up to that nebulous standard we call college-level instruction. And the number of credit hours which a particular course carries should depend upon how much college-level material the student is required to master. On this basis I believe that the basic course in life insurance should carry not less than 3 credit hours under the quarter system nor more than 3 credit hours under the semester system. I have already said that I find it difficult to cover the material adequately teaching 3 classes per week under the quarter system. On the other hand, to allow more than 3 credit points under the semester system for this course would be to give the student "watered stock"—or maybe it would be more correct to say "watered credits."

The Basic Life Insurance Course in the Curriculum

J. Edward Hedges, Indiana University

Like the other members of the panel I have been asked to comment on two aspects of our subject. First, my philosophy underlying the course and, second, the available textbooks in the field at the present time. In addition, I have agreed to discuss teaching methods as they apply to this particular course.

At the outset let me state that I find it difficult to separate matters of technique or methods of presenting material, from the text material used, size and background of the class, maturity of students, objectives of the course, and even the personality of the instructor himself and his special talents, abilities, and experience. It is appropriate, therefore, that the discussion of teaching methods be deferred until the philosophy underlying the course and the particular textbook used are considered.

Philosophy Underlying the Course. Before attempting a statement of the philosophy underlying our basic life insurance course as it is now administered, it is necessary to present the composition of our complete undergraduate instructional program in insurance. Our basic course is entitled "Principles of Insurance," and is a prerequisite to all courses at the next level. It is a typical general, or survey, course. The next level includes "Principles of Life Insurance," and "Property Insurance—Contract Provisions," (including Fire, Marine, and Casualty Insurance and corporate bonding). Each of these is followed by an advanced course bearing the designation "Underwriting," the term being employed in its broadest sense as it applies to property insurance; somewhat more narrowly so far as life insurance is concerned. (The functional approach is employed, incidentally, in the property insurance field.) Both of these courses carry graduate numbers, are used in the graduate program, but undergraduates in the insurance concentration are admitted. The courses, actually, therefore, serve a dual purpose and assist us in conserving man-power and effort. It may be noted here that the property underwriting course is specifically required only of students interested primarily in this field, while the life underwriting course is reserved for those having primarily a career interest in life insurance.

Two other courses (Disability Insurance and Group Insurance) are elective in the insurance concentration and in addition are widely elected by students in such fields as management, accounting, finance and marketing. The insurance seminar also is required of all seniors in insurance but carries a graduate number and usually includes graduate students.

Returning to the second level of courses, both the life course and the property course are required of students in the insurance concentration. In addition to insurance students, both courses are elected by other School of Business students, by economics majors from arts and sciences and occasionally by other arts and sciences students or students in the School of Education. In addition, a few students in the School of Business combine with their business requirements extensive work in mathematics, with the objective of ultimately entering actuarial work.

With specific reference to the life insurance course, it is evident that several objectives must be kept in mind if it is to serve the needs of the students who enter it. These might be expressed as follows: (1) Some students are interested in life insurance as one of our important economic and social institutions. Such students will be interested in its structure, its function as a risk-bearing device, and its implications for saving and investment, among other aspects. (2) Some students will be concerned primarily with the uses to which life insurance may be put, either in personal financial affairs or in the business operations with which they ultimately will be concerned. (3) The bulk of those enrolled will be interested in preparation for professional careers in insurance—not all in the field of life insurance, however. Of those planning to enter life insurance, the majority will have selling in mind. (4) A few students may be regarded as "pre-actuarial," and are here concerned primarily with the economic and business aspects of the field.

Although the needs to be met by the basic life insurance course, as set out above, may seem to be varied and diverse, they are not, in my opinion, mutually inconsistent. For example, the life insurance salesman will benefit from a thorough knowledge of the economic implications of the institution, as will the personal and certainly the business user of life insurance. At the same time, the economics student will be a user of life insurance and will benefit from a knowledge of that phase of the subject. It should be mentioned here, that sales techniques are not emphasized in this course as we handle it. To the extent that we deal with this problem, it is reserved for the underwriting course which is restricted to those with definite professional objectives in life insurance selling. Special work is also possible in the insurance seminar for those who desire it.

By this time, the general approach which we use should be clear. In terms of specific topics, I like to start with a review of elementary principles of risk, and insurance as a special device for meeting it. Discussion of the organization of the business may come at this point or later, preferably later, since this topic, so far as our students are concerned, has been covered in a general way in the prerequisite principles course.

I prefer to begin the discussion of life insurance, as such, with the mortality table and the fundamental loss-cost-share formula (probability of loss times amount at risk) based on figures derived from the mortality table. From this point, I proceed to the net single premium for terms running up to whole life, then develop the level premium method of purchasing life insurance, using the familiar installment purchase analogy. Thus the two main variables—period of coverage and period of installment purchase—emerge. It is then shown how the resulting plans may be combined with an endowment feature. A description of various combinations leads to a discussion of the different standard and special plans of insurance and the uses to which they are adapted. At this point the cost of insurance analysis is developed, placing emphasis on the decreasing amount at risk which results from the level premium plan and the decreasing burden of mortality cost which follows.

Annuities are described as essentially the reverse of level premium life insurance, i.e., as an arrangement for paying out an accumulated fund rather than a process of accumulation by which a given fund is created.

As the above described discussion proceeds, premium calculation problems of increasing difficulty are assigned to the class. Reserve systems and dividends

are then considered in order, followed by a discussion of terms of the policy and their uses. Legal aspects of life insurance are worked in at this point. Special types of benefits and special forms of life insurance such as disability benefits, double indemnity provisions, group and industrial insurance are then considered, followed by topics having to do with functional aspects of the business—selection of risks, treatment of substandard cases, investments and marketing organization and methods. The remaining topics have to do with the institutional aspects of life insurance regulation and taxation, social and economic implications, and historical development. Ample time seems to be afforded in a three semester-hour course such as ours, for a reasonably adequate treatment of these topics as outlined.

Incidentally, although C.L.U. preparation is not a primary objective, I believe that students who do well in our basic life insurance course are well prepared for Part A of the C.L.U. examinations. However, seniors are permitted to take a 3-hour C.L.U. review course in which they may re-orient or point up their knowledge with specific reference to Part A and other parts of the C.L.U. examinations. Seniors frequently take and pass from two to three of these examinations, and the better-qualified seniors are encouraged to attempt whatever seems justified in the individual case.

Textbooks. As has already been suggested, the particular textbook to be selected depends to a large extent on the approach to be followed, the quality and level of attainment of students, the individual preferences of the instructor, and other considerations. It should be obvious from the discussion of topics to be covered that *Life Insurance* by Maclean is well adapted to our program, and indeed it is my personal preference. I find, however, that students occasionally object to it on the ground that it is somewhat difficult in certain parts. I am not particularly concerned with such objections, since the students who find it difficult are not among the strongest in the class.

When other members of our staff have taught the course, I have permitted them to select the text which they prefer. Accordingly, in recent years, we have used Mehr and Osler and Owen. In the past I have used the earlier edition of Huebner, but I must confess I have not tried the latest edition.

Mehr and Osler is satisfactory with respect to what we may call the "science" of life insurance and is excellent in its discussion of uses and the inclusion of illustrations based on actual premium rates and costs. It is not at all unsuited to the approach which we use. Owen is less well adapted, since it emphasizes the career underwriting approach. It should prove excellent in those courses which emphasize career underwriting, particularly if no further work in life insurance is offered. It is somewhat deficient in its treatment of the institutional aspects of life insurance. It excels, however, in the availability of rate and cost information and is particularly good in this respect, as well as in providing programming tools, if the workbook is used along with the text.

One other well-known text in the field I have never used, except as the basis for a correspondence course. I refer to *Life Insurance*, by Magee. Undoubtedly it would be suited to our purposes, since it includes ample material on the topics which I like to cover. I should want, however, to move forward the material on risk measurement, mortality tables, and premium computation in comformity with the arrangement previously suggested.

Teaching Methods. As was indicated earlier, it seems to me that teaching

methods must vary with a number of factors, including the text material used, the approach to be followed, the size and background of the class, and even the personal preferences and talents of the instructor. Of these, all but the last have been discussed, with the exception of the size of class. Our own classes vary somewhat in size, in recent years from 15 to 30 or 35. (The course is offered each semester, which tends to reduce the size, and, in addition, certain requirements not applicable to all School of Business students tend to keep the number of majors at a minimum. One specific case in point is the course in mathematical theory of investment taught by the Mathematics Department.)

Specifically as to method, my own preference is for the lecture system, but so handled as to raise questions and promote discussion. I find that the best way to secure class participation is to relate the subject matter being discussed to the personal, academic or, where feasible, to the business experience of members of the class. The older or more mature the group, of course, the easier the task becomes. If this device does not prove fruitful, and to some extent in any case, challenging or provocative questions are presented for class consideration and discussion. As to the lecture itself, I do not believe in merely a recitation of the assignment by the instructor. It is used, rather, to highlight the material with which the student is presumed to be familiar, to present explanatory or supplementary material, to simplify difficult concepts, or to point out relationships. Although extensive collateral readings are not required, supplementary materials are introduced via the class lecture and a reasonable amount of outside reading is expected.

The basic life insurance course lends itself well to the use of exercises particularly in connection with premium calculations, reserves, and the adaptation of policies to needs. Assigned exercises are discussed, usually graded at the time and occasionally picked up for later thorough review and marking. Occasionally a short, unannounced quiz is given over the day's assignment. It may be in the form of an exercise similar to one which has been assigned for the day.

Usually two or three hour examinations or tests are given during the course of the semester. The type varies somewhat with the phase of the subject to be covered, but in general my preference is for problems where appropriate, otherwise for essay-type questions. As to the latter, I attempt to provoke thinking on the part of the student rather than to use questions which emphasize memory and call for rote answers.

Occasionally a term paper is required, frequently taking the form of a personal program, with modifications to meet assumed conditions at five- or ten-year intervals up to the time of retirement. If such a paper is to be required, it is assigned early in the course and various segments are turned in for criticism as they are completed.

At this point I should like to express my views with regard to the extent to which we may properly assume that a student is preparing exclusively for a career in the field of life insurance. In many respects our problem would be simpler if we were to assume that all students under our direction would enter and remain in the type of work for which they are preparing. My experience and observations, however, lead me to believe that such an assumption is highly dangerous and an injustice to the student. Although there may be exceptions, most institutions rely upon the student himself to make the final decision as to the type of work for which he will prepare. An interest in and

an aptitude for academic work in life insurance is not a satisfactory guarantee of ultimate success. My own feeling, therefore, is that specialization should not be carried to a point which will jeopardize the student's ability to fit into any one of a variety of jobs. In most cases our students who prepare for life insurance careers actually follow out their original plans and are successful. There are a few exceptions, however, and these I feel must be protected. Furthermore, preparation for a successful career in life insurance, in my opinion, requires a broad cultural basis, a thorough knowledge of business practices and underlying theory, as well as some knowledge of the techniques employed in various fields. Certainly the value of an educational experience of this type is not limited to a single career objective. Even when it comes to insurance courses as such, I believe in emphasizing principles rather than the details of current practice. The latter may change, but correct principles, while perhaps not immutable, are modified only slowly.

The Basic Life Insurance Course in the Curriculum

CARL H. FISCHER
University of Michigan

As the panel chairman told you, I am an actuary and my background is mathematical. The value of my opinions on the topics under discussion might be measured by referring to a remark made by Professor Hampton Irwin in his talk before this organization at the meeting at Boston two years ago and published in the *Journal* of the AAUTI, Volume 19, page 13.

Irwin said, in part: "And when an insurance course is entrusted to the tender mercy of, let us say, a professor in charge of real estate . . . or more likely when it is given over to an actuary or a mathematics instructor . . . what happens? It is quite likely that in such cases the mathematical aspects of insurance, important though they may be, will be stressed and considerable time will be given to the structure and the functioning of home office organizations, the ramifications of state and federal regulations, etc., etc."

Philosophy

We have all been asked to state the philosophy underlying the basic life insurance course, that is, whether the course is based upon the mathematics of life insurance, on the consumer attitude toward life insurance, or the salesman's attitude, or on some other philosophy. At Michigan we should prefer to come under the fourth category and call it a "balanced" course.

We certainly would not emphasize the mathematical aspects. As you probably know, we have the oldest and largest actuarial program in the United States, having, in fact, just celebrated the 50th anniversary of this program. Our mathematics of life insurance is taught by the Mathematics Department, and in the School of Business Administration we probably put less emphasis on mathematics in the basic life insurance course than do most other institutions. The remarks of the previous speakers seem to verify this statement.

Our sales approach is taken care of by the Extension Division of the University through which CLU courses are taught at Detroit, Ann Arbor, Grand Rapids, Flint, and other cities. The consumer approach has its appeal, but we believe we go farther than that in our course.

We think that for the basic course the balanced course is best for all concerned. We believe that the actuary should know what goes on beyond his calculator, not only in the home office, but also in the field and in the minds of the prospects. We believe the agent should know something beyond what is in his rate book and agency manual, both with regard to the make-up of insurance and the way in which the home office functions. We believe that the consumer should know more than what the typical agent tells him. He will be more understanding and appreciative of life insurance if he has some additional knowledge. I do not believe that he is disinterested in the way in which life insurance operates and companies function. The general public has demonstrated that it likes to inspect factories, packing plants and other industrial organizations and likes to have a general idea of what goes on. True, the consumer is not interested in details, but he likes to have basic knowledge.

Texts

We were all asked to comment on textbooks. The discussion which follows will be based upon the assumption that we are trying to select a single text for a balanced course, and the remarks should be interpreted with that in mind. One can't criticize textbooks without stepping on toes. To tread as lightly as possible, let me say that I think any one of the five textbooks in this field can be made satisfactory for the balanced course by an experienced teacher if he supplements here, modifies there, corrects, and deletes. They are all good texts and if only one of them existed our courses could go on much the same as ever.

In concurrence with the previous speakers, I feel that few teachers can properly evaluate a textbook without teaching from it. Further, I believe in giving an author his proper chance so that when teaching from a given textbook for the first time I invariably assign all of the material and in the order written. The next time through, I am apt to make alterations. I have taught each of five texts at least twice except that I have not taught from the most recent edition of Huebner's book, although I have taught his earlier editions several times.

I shall take up the books in the order of their original appearance. As the length is of some importance, I have listed the number of pages of textual material, excluding appendixes, indexes, etc.

1. *Huebner*—552 pages. This book was the great pioneer work. The chapter headings indicate that it is a fairly well-balanced book but I believe that it has a fairly strong slant toward the salesman's point of view. I should like to have added a chapter on the history of life insurance, one on the annual statement, and one on programming.

I have only one other point of criticism applying to the portions of the book written by Dr. Huebner. My experience has been that the long recital of the uses of life insurance, which occurs in the first 80 pages before basic information is given on the life insurance policies themselves, has a tendency to split the student group into two portions: the life insurance missionaries and the skeptics. The latter group is apt to feel that nothing can be as wonderful and all-encompassing as life insurance is here portrayed to be.

Part Two, the *Science of Life Insurance*, while somewhat improved over the previous editions, leaves much to be desired. In common with three of the four remaining textbooks, there is a tendency to stress details and thus obscure the central purpose and theme of this section.

2. *Maclean*—566 pages. This book is not suitable for a balanced course without considerable supplementation because it is almost completely devoid of the uses of life insurance. For the home office man who wants life insurance techniques only, it is a beautifully done job. It was written by an actuary and as might be expected, is good on the science of life insurance and it has good chapters on the annual statement and the history of life insurance.

3. *Magee*—806 pages. This text is well balanced but excessively wordy as the number of pages indicates. There is a fair chapter on programming in which, unfortunately, the principal illustration was not revised to bring it up to date on the OASI benefits. The chapter on mortality tables apparently tries to embrace every table published in the last 150 years and the remaining chapters of this section also suffer from a confusing mass of detail. Strangely enough, in spite of the length of this text, there is no chapter on the history of life insurance.

4. *Mehr and Osler*—684 pages. The length of this book is not as great as the number of pages indicates since it has fewer words per page than any of the other texts being discussed. The text is suitable for a balanced course and is excellently organized. It has good chapters on life insurance needs and on programming. The style is very informal. Some persons consider it too flippant, but most students tend to find it interesting. The book suffers from a considerable number of inaccurate and ambiguous statements and the chapters on premiums and reserves are poor.

5. *Owen*—344 pages. This book is suitable for a balanced course. It is pleasantly brief. The style and organization are good. One feature which is particularly commendable is the inclusion in the appendix of illustrative premium rates, reserves, etc., so that the student can make actual programming calculations just as an agent would make them for a prospect. The chapters on premiums and reserves are fair, suffering, in spots, from needless detail.

On the other side of the ledger we have a chapter on life insurance gains and losses which should be deleted. This particular portion of the annual statement has been objected to by leading actuaries for at least 30 years. It is the consensus of actuarial opinion that this material is either misleading or meaningless. In no place in the chapter on the selection of risks is the basic purpose of selection brought out or is there any general description of methods; instead we find a mere catalog of impairments. There is no chapter on the history of life insurance. Finally, I find I am irritated by the constant repetition of the term "premium deposit" used to describe a premium *payment*.

Teaching Methods and Aids

I was asked by Dean Graebner to discuss the scope and content of the course, teaching methods and teaching aids, but I believe the desirable scope and content have been pretty well covered by the previous speakers and to some extent in my previous discussion. As far as teaching method is concerned, I make advance assignments which I expect the students to read and the class period is used to bring out supplementary information, illustrative material, or an explanation or correction where the text is not clear or adequate. An exception to this method occurs when we consider premium and reserve calculations where lectures are given, often designed to replace material in the book.

A term paper is almost always assigned, and usually a wide selection of topics is permitted. Our library has a sizable collection of the more sensational books critical of life insurance, and usually some of the papers are criticisms of these criticisms. When a student, who at the start of the course would have been taken in by these critics, is able to point out the sophistry and fallacies, half-truths and plain lies contained within the books (and also to recognize some of the actual shortcomings of the industry), I feel that for him the course has been a success.

In some courses in the insurance field I find outside speakers to be very useful. For example, in my course in employee benefit plans, I have speakers representing union, management, insurance companies and trust companies, accountants familiar with the practices of the Internal Revenue Service, and advocates of profit-sharing plans. But in the course in life insurance, the time is short, books are fairly adequate, the material is not changing as rapidly as in the retirement field, there is less controversial material. In other words, an outside speaker has to be exceptional, in my opinion, to make the time spent

worth while. The only really good outside speaker I have been able to bring to my class in life insurance is Bob Mehr.

Regarding teaching aids, frankly, I do not think that the subject of life insurance lends itself too well to illustrative material. The Institute of Life Insurance has devoted a great deal of attention to this matter and has come up with only a relatively small number of graphs and charts which are of value. I use these. I do some graphing in class of mortality rates, reserves, net and gross premiums, etc. I cannot get very enthusiastic about pictures of a happy family listening spellbound to an agent or an agent handing the widow Brown a check. I have a newspaper clipping here dated October 23, 1953, which expresses to some extent my views on this matter. The headline states, "Michigan State College Professor quits over lower standards," and in one paragraph the professor is quoted as saying, "The professor has become a menial who lugs in slides, gives standardized lectures, administers tests prepared by someone else, and grades them with a machine." (A colleague of this professor denies that "the professor lugs in slides." "They are already in the classroom when the professor gets there," he explained.)

To sum up, then, I believe the basic life insurance course should be a balanced one not slanted toward mathematics, sales, or the consumer; that any of the five textbooks in the field can be used with reasonable satisfaction; that, with one exception, these books are weakest in the section on the science of life insurance where, oddly enough, their principal defect is in giving too much mathematics, too much arithmetic, too many details, thus obscuring the basic ideas; that teaching aids and outside speakers, if used at all, should be a distinctly subordinate portion of the course.

Research in Life Insurance

S. Rains Wallace, Jr.,

Life Insurance Agency Management Association

It is singularly appropriate that a meeting of insurance teachers should include a panel on research. The concept of insurance is basically a scientific one. Insurance itself neither could have been initiated nor maintained without the painstaking and brilliant research of the Actuaries. It has been said that all modern science derives its basis from the theory of probability. In this sense, insurance and science become, if not sisters, at least kissin' cousins. This heritage has been evident in the way that insurance people in general have looked to research methods for help in their problems. And I think it can be said that life insurance has been in the forefront.

Of course, in the 20 minutes allotted me, I cannot hope to give you an exhaustive account of every research program being pursued under the aegis of life insurance. I shall therefore start by ruling out consideration of one of life insurance's major research contributions. I refer to the many millions of dollars which have been expended by our companies in support of medical research. Suffice it to say that this fascinating combination of self-interest and sense of public responsibility has made a significant contribution to the longevity of our generation.

The other research areas in life insurance may be classified under four major headings: product and pricing, investment, office management, and distribution.

Under the heading of product and pricing come the long term research activities of our actuaries and our underwriters. The actuaries especially have been research conscious and long ago ceased confining themselves to the original problems of mortality table construction. Indeed they have been so ubiquitous both with respect to time and type of problem that a catalogue of their activities would fill this paper entirely. We shall meet them often as we continue through the remaining areas. They are found advising or working with the various institutional research organizations and assuming major responsibility for the many projects engaged in by the individual companies.

Investment research finds its place in many of the companies but has its fountain-head in the investment research program of the Life Insurance Association of America. This program started in 1945 under the leadership of Dr. James J. O'Leary. It has made grants in aid of basic economic research amounting to over $1,000,000. The research program is divided into two parts: (1) Grants are made to universities and other private research agencies for the purpose of encouraging economic research of interest to the life insurance business, particularly the investment officers of life insurance companies. (2) A small staff is retained by the Life Insurance Association of America to conduct research focused particularly on the investment operations of the life insurance business.

With respect to research financed by the life insurance business under the investment research program, the following projects are the most important:

(1) ***Study of Saving and the American Capital Market.*** This study has been conducted by Dr. Raymond W. Goldsmith over a four-year period. The results will be published in 1954 by the Princeton University Press. The objective of the study is to provide a detailed and comprehensive record of the flow of saving in the American economy during the period 1897-1951. It shows, for example, the extent to which saving through institutions and saving in a contractual form has steadily increased over a long period of time. The study should provide a rich body of material for further development of the whole theory of saving and investment.

(2) ***The Study of Capital Formation and Financing.*** This project, conducted by Dr. Simon Kuznets and a number of associates, is attempting to shed light on the prospective demand for capital funds from various sources during the next 15 to 25 years. The approach is to analyze the record of capital formation and financing over a long period of time in the past and thus to provide a basis for better interpreting demand for capital funds in the future. This particular project involved a grant to the National Bureau of Economic Research and it is expected that the results will be published by the Princeton University Press in 1954 and 1955.

(3) ***The Financial Research Program of the National Bureau of Economic Research.*** During the past several years the Life Insurance Association of America has made a series of grants to aid in the work of the Financial Research Program of the National Bureau of Economic Research. The life insurance business has contributed in an important way to the Corporate Bond Research Project conducted by Dr. W. Braddock Hickman of the National Bureau staff and part of the results have already been published. In addition, funds have been made available for studies of urban mortgage finance and agricultural finance.

The work carried on by the research staff of the Life Insurance Association of America has been concentrated on procuring a much more detailed and better picture of the investment experience of life insurance companies in corporate bonds, stocks and mortgages. In addition, detailed information has been worked up on the extent to which, over a period of years, the life insurance companies have purchased corporate bonds through the channel of direct placements as compared with public offerings. Considerable work has also been done on such subjects as the gross and net flow of funds through the life insurance business, sources and uses of capital funds in the capital market as a whole, and the cost of mortgage lending.

As the total field of investment research has been sparked by the LIAA, so is the area of office management research led by the Life Office Management Association, under the direction of Mr. Frank L. Rowland. Mr. Rowland has long been envied by others in the life insurance research field for his uncanny ability to get well-conceived, well-executed, and even well-scheduled research done by committees of company representatives. The result is a tremendous amount of useful information and material from a very small permanent staff.

The L.O.M.A. has dealt with problems at the home office level, including personnel, office procedures, and costs. Since its organization in 1924, it has made substantial contributions in such phases of personnel administration as salary standardization, clerical testing and selection, and supervisory and clerical worker orientation and training. Specific studies have included the

development of the widely used LOMA tests; a merit rating system; a wide range of investigations in the areas of morale, absenteeism, tardiness, and termination; training for new workers, in fast reading, in work simplification, in telephone techniques, etc.; compensation and bonus practices, fringe benefits, and suggestion plans.

In office procedures, it has investigated production and quality control of office workers, two shift operations, tabulating and calculating machine operations, methods of disbursement, premium collection, claim payments, duplicating, filing, recording, etc. In this area, perhaps one of its most significant efforts lies in the field of electronics where its Electronics Committee is collaborating with a similar committee of the Society of Actuaries. The alertness of these two groups to the potentially revolutionary impact of electronic brains on the standard operating procedures of our business is testimony to the fact that these organizations have not become grooved in the ways in which they perceive their problems or in their methods of attack.

In the field of costs, emphasis is being placed on the study of departmental and functional costs of life office operations with the ultimate objectives of providing a basis for sound inter-company comparison. The difficulty of this area (recalling that life insurance companies operate on futures so that the classical formulas of cost and profit can be applied only with the greatest difficulty, if at all) means that this effort must come under the heading of long-term research. In the meantime, however, informative studies have been made in the areas of budgeting and budgetary control and the costs of specific functions such as letterwriting, billing, accounting, and others.

We come now to the area of distribution which, in life insurance (with its lack of a production problem) bears a uniquely important position. That I believe in this importance has only a remote relation to the fact that this is the area for which my own organization—The Life Insurance Agency Management Association—has the major responsibility. That mouth-filling title will not be used again. From now on it's we.

We find our main interest in the fact that the process of distribution is almost entirely a function of people. For this reason most of us are psychologists and we concern ourselves with the people who sell and the people who buy the stuff. Under the heading of field personnel we are concerned with life insurance agents, their supervisors, and their managers. We have been doing continuous research in the area of agent selection since 1932. The result has been a carefully validated selection test, now administered to over 100,000 potential recruits every year by over 150 of our member companies. A new, thorough, revision of this test will be placed in operation next April. This represents the third test revision and is made necessary both by changing economic conditions and changes in the characteristics of our potential recruits and in the job of life insurance selling.

In the process of following through the careers of many thousands of agents for test construction and validation cases, we have also been able to provide other information of value to our companies. For example, we have developed and confirmed a system of postselection which makes it possible to detect an individual whose early performance gives such high odds for ultimate failure that he should be terminated both in the company's and his own best interests. This one study alone has saved our companies a large sum of money and has saved our potential failures the unproductive investment of their own man-hours.

In the areas of the training and supervision of agents, we are making experimental studies to evaluate the effect of various training procedures and methods on subsequent agent performance. For example, we have recently completed a study which shows that, in one company at least, the effect of a short but costly regional school is largely lost unless it is followed up with an organized system of home office contact with the individual trainees. Work is also being carried on in the development and evaluation of training and supervisory aids. Examples are: The Information Index, an objective test of insurance knowledge, and the Sales Method Index, an instrument to aid in the continuous supervision of an agent with respect to prospecting, markets, and selling habits.

The area of job satisfaction and morale receives considerable of our attention. Here, we are engaged in trying to discover the relation between stated job satisfaction in various areas and performance. Already our work is raising serious questions about the oversimplified axiom that good stated morale means good performance.

At the same time that this work continues on agents, we are attacking similar problems relating to supervisory personnel. Here, progress has been greatly impeded by the seriousness of the criterion problem—the difficulty of making reliable and fair estimates of the degree of success or failure of a particular supervisor or manager. Since the validation of any selection, training, supervisory, or morale procedure involves relationship with such a criterion, we are now putting major emphasis on this for the supervisory personnel and are exhaustively re-appraising the agent criteria thus far available to us.

All of this research could, in the last analysis, be called cost research. A large part of the life insurance cost goes into distribution and a large portion of that goes into the field force. Improvements in turnover, average production, etc., are desired for the reduction of this cost. For this reason, it becomes of great importance to develop methods of determining the costs of distribution and to show how these costs are affected by our research products. We do not know how to do this, at present. Our motivation for finding out is strong, since it derives not only from scientific curiosity but also from the recognition that there is no better way for research people to keep our curious but hard-headed sponsors on board the budget!

In the other two areas of distribution, (from the viewpoint of the public and of the industry) we share responsibility with our colleagues in the Institute of Life Insurance. In the second heading—the people who buy (not, unfortunately, quite identical with the public) both we and the Institute are interested in demographic data. The surprising lack of duplication results from close coordination and somewhat different interests. Thus, the Institute concerns itself with information which is not only valuable to the Industry but which may have an impact on the public as information. For example, they have collected and made available data on such matters as the amount paid out on death claims, the extent to which families are providing for security in old age through annuities and insured pension plans, the trend in the proportion of incomes being spent for premiums, and the contribution made to the development of our economic structure through the investment of life insurance assets.

We, on the other hand, have interested ourselves in the characteristics of

people who buy (and who do not), the penetration of the market made by our agents, the prediction and improvement of persistency in premium payment, and the knowledge and attitudes of the public toward life insurance, the companies, and the agent as they relate to buying or re-buying behavior.

In the last area—the Industry, the Institute and we try to serve as the statistical house keepers for the companies. Once again, in close cooperation, we collect and report basic data on the amount of insurance sold each month in each state, the trend of insurance in-force, the trend in the number of new policies being sold in relation to the amount of coverage provided, etc. In addition, we of the LIAMA provide continuous records of the recruiting, turnover, and production levels of over 80 companies (our files now include records of the progress of over 25,000 agents). We also complete a number of studies each year in the company practices area, attempting to answer the inevitably popular questions such as "What do other companies' contracts look like?" or "What kind of agent training programs do other companies have?"

There is no time to give you a concept of the breadth of work being done by these organizations I have mentioned. Unfortunately also, no time is left to tell you of the parallel work that is being done by some of the individual companies both large and small. Suffice it to say that it is considerable and helps to expedite one of the often overlooked but primarily important functions of research—to get itself used in day to day operations. I do hope that, however sketchily, I have given you the impression of an industry that is determined to keep itself well-informed, susceptible to change, possessed of sufficient executive daring to find out where it is weak and how improvements may be made. I believe the life insurance business has given good evidence of such determination, that the end result will be wider and cheaper distribution of more life insurance to more people, and that this will constitute a contribution to our economic and social welfare.

New Tools to Aid Insurance Management

FRANK LANG, Manager, Research Department
Association of Casualty and Surety Companies

Insurance management, particularly in the fire and casualty branches, is confronted today with the challenge of solving problems which are larger in number and more serious in nature than at any other time during the history of the business.

Challenges to Insurance Management. What are some of the factors causing this challenge to company management? Let me list just a few:

> Rise of government-owned or operated insurance programs; increased demand for broader and simplified coverages; increased operating costs brought about by rising salary levels, rents, taxes and miscellaneous expenses; added costs for new services, such as welfare programs and pension plans; extension of state supervision through enactment of rate regulatory and uniform accounting laws; demands for distribution methods which will meet a mass market; increasing competition in the marketing systems of property insurance; and finally, the public realization that insurance is in the nature of a semi-public utility which should provide maximum protection at minimum cost.

Insurance company management is realizing that many of these problems cannot be met by traditional methods. There have been instances where an attempt to stand pat on long-established practices brought forth a reaction which could have been avoided, or at least modified, if an effort had been made to adapt to changing conditions in a planned and logical manner.

Scientific Approach. How can insurance companies best meet this challenge? I submit to you that the answer lies in the application of the scientific approach to policy problems of both an internal and external nature. This approach, first used in chemical and industrial laboratories, was employed by the Armed Forces in the solution of their most strategic problems, and has become recognized by many industries as the soundest basis for decision-making as regards current operations and future planning.

The scientific approach can be applied to all types of business problems. It involves more than the process whereby a technician solves a specific problem. It starts with creative thinking, leads to recognition and statement of the problem, the determination of sound objectives, collection and classification of relevant data, interpretation of these data, development of plans for action, and finally follow through. In other words, the scientific approach, which often is used synonymously with research approach, is an organized way for management to find out what to do as opposed to the all-too-common trial and error method.

Research is continuously seeking, honestly and objectively, to answer questions confronting management at the present and tries to anticipate those which will come up in the future. The research approach can be compared with a radar screen. It can seek out and report accurately the dangers ahead

long before they are apparent, and can thereby provide information enabling management to proceed with confidence and safety.

Insurance companies in the fire and casualty branches have used research for a long time in many aspects of their operations. Gathering and analyzing facts are the very core of a system which aims to eliminate the risk of economic loss or distribute costs as equitably as possible. Research and planning activities in such fields as loss prevention and conservation, preparation of contracts, and determination of investments are well established today. Having discussed the accomplishments in these fields on previous occasions, I do not need to elaborate on them at this time.

The scientific approach, however, holds even greater and more lucrative opportunities in other areas, such as: (1) administration; (2) marketing; (3) personnel; and (4) public relations.

Let me give you an example of how we have applied this approach to practical insurance problems in each one of the above areas by reviewing briefly some of the activities of my department.

Research Department's Activities. When I organized our Research Department in March 1944, we set up the following two objectives: to bring before our member companies information which would enable them to appraise over-all trends and developments; and to assist management in the solution of specific problems.

First, in the field of administration, in which I include all management problems in home and branch offices, we set as our objective an increase in productivity and efficiency, and a decrease in, or at least control of, costs. Our initial efforts were directed toward studying the most economical use of manpower and reducing the number of man-hours required to perform certain operations. Subsequent projects were concerned with the interpretation and application of the uniform accounting regulations, and with research to determine expense graduation by size of risk.

The focal point of our present management research program is our Workshops on Cost Reduction and Control. Based on the assumption that a free exchange of information on common problems would be of direct help to everyone, the Workshops are carefully planned seminars for the interchange of ideas and experience concerning management questions. Let me give you two examples of subjects which we covered and how we treated them. On the over-all topic of "Company Organization Under Multiple Line Underwriting", we discussed organizational problems, first from a general viewpoint, and then analyzed some of the subsidiary aspects—Budgetary Control, Production Costs, Forms Control, Recruitment and Selection of Fieldmen and Underwriters, Training of Underwriters and Fieldmen, and Flow of Work—in six separate work sessions.

The theme of our latest Workshop, held last October, was "The Creation and Recording of Claims." We broke this theme down into five topics which were reviewed in concurrent sessions. These were: The Creation of Claim Records; Reserve Methods; Autonomy, Authority, and Supervision Given Field Offices; Maintenance of Statistics on Claim Developments; and the Retention and Destruction of Claim Records.

Each Workshop has to be carefully planned as this is primary research in a virgin field, with no books or published reports available. We therefore spend several months in preparing a detailed outline to assure that

each phase under each topic receives adequate treatment. The discussion taking place in each seminar is then used as a basis for more extensive management research on the various topics brought up. The final results, illustrated with case histories and exhibits, describe, analyze and evaluate various approaches to each management problem taken up; they are included in a specially prepared book which we call "Reference Manual on Cost Reduction and Control", which is arranged by subject matter and cross-indexed for easier reference.

Let me give you an example of how we analyzed one topic, namely, "Flow of Work in Processing Private Passenger Car Automobile Policies". First we discussed ways in which flow studies should be conducted. Should there be a separate methods and systems department or should there be a planning committee? Who else should be charged with the responsibility of handling this type of work? To whom should such a unit report? What are the qualifications of men who would do this type of work? What is involved in preparing job descriptions? We examined specific steps in charting a work flow program. The need for a policy register, the relative advantages and disadvantages of entering business on the books before or after underwriting, the use of abstracting and indexing, and the relative advantages and disadvantages of coding in the field or home office were considered. Finally, we included a number of flow charts taken from field studies in company offices.

To supplement the finding shown in this Manual, we have undertaken special research studies on specific management problems which require more intensive study. These special studies include a survey of the comparative cost of company-owned, employee-owned, and rented cars, and a study of the destruction programs of claim records in effect in various companies. The latter report evaluates such procedures as designation of destruction dates, authorization of the program, methods of destruction used, methods available to reconstruct files, etc.

Second, in the field of marketing, we have made some pilot studies of present and potential markets in order to determine what coverages are wanted by the public, and what needs are unfilled. The relatively few studies made can be divided into three categories: consumers' opinions on coverages they intend to buy, agents' opinions on coverages they believe will be sold, and estimates of insurable risks which are not covered. A survey in the latter category revealed that even in as wealthy a county as Westchester, New York, less than a quarter of the respondents carried burglary insurance.

We have also made some attempts to analyze our distribution costs through a preliminary investigation relating the cost of the fieldmen and special agents to premium volume produced in their territory.

An example of a statistical study designed as a sales management tool is the analysis entitled, "Employment and Payroll of Persons Engaged in Insurance" which breaks down, by states, the number of people employed by different branches of insurance and the amount of money they earn.

In the nature of a sales aid, we prepared a series of "Management Aids for Small Business" for the Small Defense Plants Administration of the United States Department of Commerce. Written in non-technical language, these aids are designed to acquaint the small business man with the casualty and surety hazards to which he is exposed, and explain to him the various types of protection available.

Third, in the field of personnel administration, we prepared a recruitment tool as early as 1945. It is a special handbook entitled, "A Career for You", designed to attract career-minded young people to our business. It had to be reprinted several times, and I am glad to hear that it is still very much in demand by schools, colleges and vocational offices. Another study in the same area is the "Occupational Brief", which we prepared for the educational program of the Armed Services, describing the qualifications and training needed, available jobs, and future prospects in various positions of the fire and casualty insurance business. We devoted a full Workshop Session to personnel problems, covering such topics as job requirements, qualifications needed, recruitment sources, interviewing techniques, appraisal methods and other selection procedures. At present we are trying to develop tools which will help in a more objective selection and appraisal of personnel. After considerable study of this topic, I am convinced that the task of preparation of tests is relatively simple compared with the setting up of objective criteria for measuring the success of an individual. Many universities have made great strides in the development of scientific tools in this field, and we can benefit greatly by applying some of the research which they have done.

In connection with the subject of salary administration, our department conducted research on job descriptions, job evaluations, and on the methodology to be used for this type of work. Another important aspect of personnel administration is training. Here again we have only done preliminary research by devoting a Workshop to such topics as "Purpose and Usefulness of Training", "Setup of a Training Organization", "Type of Training Program to be Established for New Personnel, and Existing Personnel".

Fourth, and last, is the broad field of public relations. Research can be the basis for determining what policies and procedures can, or should be, adopted to gain the maximum amount of public good will. Since public relations can be considered a two-way street, research can be approached from two directions: studies which interpret public opinion to management, and studies which determine the best means of bringing the company's messages to the public. In connection with the first field of public relations research, our department has collected and analyzed a number of public opinion polls and surveys containing information about the attitudes of various groups with which insurance companies have contact. We have also cooperated in the planning and execution of opinion polls and surveys relating to issues of importance to insurance operations. In the second area—that of telling our story—we have conducted a few studies on advertising research techniques, evaluating the effectiveness of national advertisements sponsored by insurance companies.

Public relations offers a vast field for the application of the scientific method which insurance companies should take advantage of. Tools have been evolved, personality tests for example, which give an insight into the reasons why certain attitudes develop or fail to develop. Other possible research approaches would include the accumulation of case histories, or the establishment of public panels to test reactions to various forms of communications.

The Individual Company Approach. Any trade association, or jointly sponsored research group can go only so far in accomplishing results. True, they can encourage the use of objective planning or teach member company personnel the potentials of these new tools. However, in order to be useful, it is up to

the management of each individual company to see that the tools are applied to the particular problems facing them.

Let me give you a few practical examples of how some individual companies have profitably used the scientific approach.

One multiple line fire and casualty insurance company, which set up a planning and research staff many years ago, delegates to it a variety of responsibilities. These include the appraisal of present and prospective company operations, based on the long-term objectives of the organization and on discernible economic trends within the industry and country as a whole. The staff also attempts to keep management aware of trends in public opinion that may lead to legislative action so that management can adapt its policies and plans accordingly. Among periodic reports prepared by this unit is a reserve study which breaks down the company reserves into its components, presents tests designed to show the adequacy of case reserves and reviews the reserve procedure used at prior dates. Other reports analyze the experience of various lines with the purpose of giving management an overall view of where the company is and what its experience trends show. These findings are used not only as tools for the underwriters, but also to show the distribution of business and point to the causes responsible for the underwriting results. This staff is also called upon to estimate the possible volume of business by line and region in connection with the preparation of operating budget figures, and also to determine the relation of sales to market potential.

A second company has set up three special staff units. One deals with problems of an administrative nature, such as establishment of an organization manual, preparation of job descriptions and similar problems. A second unit investigates agency and sales problems, and a third concerns itself with actuarial and experience data. Some studies on automobile insurance, undertaken by the latter staff unit, deal with such subjects as (1) the relationship between auto loss frequency, severity, and occupation; (2) the auto loss record of members of an insured's family as contrasted with the insured; (3) auto losses related to the age of the driver at the time of the accident; (4) the relationship between annual auto mileage driven and loss record; (5) a comparison of auto physical damage experience between encumbered and unencumbered vehicles; and (6) auto experience by make of car, by body style, by year model.

A third company performs this work in a special research department with a full vice-president in charge. The department is on a level equal to claims, sales and underwriting. The functions of the staff include: the planning and coordinating of improvements in company operating and procedure methods, lay-out and equipment; development and improvement of control reports; development and maintenance of standard practices and procedure manuals; standardization of methods in work performance; supervision of the company suggestion system.

Some of the most extensive research and planning activities are maintained by a company which uses separate planning units as an adjunct to many of its major operating departments.

For example, the research unit associated with the sales department conducts studies which are designed to interpret and forecast trends in sales production, growth of business in force, sales costs, competitive strength, etc.; it analyzes the insurance market by company, coverage, potential premium in-

come, service and facilities required; it develops questionnaires and conducts sales surveys; it recommends current and long-range quotas; it prepares and maintains budget controls; it develops and recommends criteria for establishing operational facilities in field offices; and finally, it prepares and maintains sales statistics, records, control reports, and cost accounting records. Following a study of the potential market for polio insurance, an active sales program for this type of policy was initiated. This indicates the value of research in promoting sales. Another study conducted by the sales research unit sought an explanation for the decline in the renewal of fire policies. The company management was then aided by the facts obtained from the study in its attempt to solve this problem.

The research unit associated with the public relations department evaluates the effects of government insurance programs; it studies the relationship of general economic conditions to the insurance business; it studies the public's insurance requirements and the company's ability to meet them; it analyzes the community's acceptance of the company's activities; it examines state and national laws and regulations; and lastly, it analyzes means of accident and fire prevention and interprets over-all accident trends.

A considerable number of insurance companies have applied scientific procedures to personnel administration, and found them of great value.

Employment testing is one of the tools used in varying degrees by many companies. Careful research is necessary before installing a testing program since much information is needed to discover the extent to which tests are valid in predicting success or failure for particular jobs.

One insurance company, which considers its program of employment testing a very profitable one, estimates that through this program of selection the percentage of applicants who succeed on the job has increased by more than 20%. The company estimates that this increase in successful hiring saved them $100,000, as against $15,000 for the cost of administering the test.

Studying the scoring on the tests in relation to job performance over the years, they discovered a correlation between interest patterns and degree of success on a particular job. According to the results of the study, a man who scores high on one of the tests has six times as much chance of being an outstanding success as one who scores low, and only about one-third as much chance of being a failure.

The company also made a study of all field representatives hired during the years of '46 and '47 after they had been in the field for a year. Since no one was hired in this period who had a very low score, the range was not so great as in the previous study. The study did reveal, however, that the high scoring group is 3 times as likely to achieve outstanding success as those who make low scores, and that the high scorers have 22% less chance of being rated "Average" or "Poor".

This company also considers the scoring on a mental alertness test as critical in predicting promotability of an applicant. Studying the scores of men hired in the home office underwriting department during the period 1940-48, and the type of job held in September 1952, they found that while 79% of the high scoring group reached some type of underwriting job in the period studied, only 11% of the low-scoring group had attained that level.

Another casualty insurance company, which has made great strides in the area of getting the right man for the right job, has leaned heavily upon

its program of psychological evaluation of employees. Although the psychologists occasionally interview an individual at the time of hiring, their main function is to work with people after they have been employed. After testing and interviewing, they continue to hold developmental conferences with the employee.

The program covers underwriters, adjusters, auditors, special agents, actuarial and statistical employees, engineers, technicians and anyone else who has supervisory authority. Other employees may also have conferences with the company's psychologists if they have problems which bother them.

No particular fuss is made about the interviews so that employees consider them part of the general routine. The evaluation procedure consists of two sessions generally, with subsequent conferences if needed. The first session lasts an hour and a half and is for the purpose of gathering information; the second session, which lasts an hour, is devoted to a discussion of the employee's strong and weak points. Each employee is re-evaluated every three to five years. During these interviews, an attempt is made to measure mental functioning, emotional stability, human relations pattern, supervisory potential, and degree of insight into self.

Close agreement has been found to exist between the measure of potential ability and actual performance. In the case of disagreement, there is a careful investigation into why the employee's performance is not better.

The psychologist in charge of the program is responsible only to the president. The results of the evaluation go to the president and to the manager of the branch office if the employee is so connected; a copy is also retained by the psychologist.

Of the company's 5,000 employees, 2,000 have been evaluated to date. They are able to interview four employees a day.

Many fire and casualty insurance companies apply scientific tools to management problems other than those described above. The applications mentioned are intended merely in the nature of examples, but I trust that they show how fire and casualty insurance company management can use the scientific approach, and how valuable an aid it can be in the solution of policy and operating problems of all types.

Future Trends of Management Planning in Insurance. After this brief review, let us ask, "What will be the future of scientific management tools as applied to fire and casualty insurance companies? In which direction is management philosophy going?"

1. So far, relatively few companies have seen fit to establish a full time staff research function investigating the types of management problems mentioned above, but those companies which have done so have gone all out in its promotion. In other words, company management either believes completely in the application of scientific management or prefers to continue established procedures.

2. The number of companies employing scientific procedures is increasing with amazing rapidity. For example, in a recent survey among thirty of the sixty largest multiple line insurance groups, fifteen companies indicated that they had a separate full-time staff unit concerned with planning and control, most of which were established only recently. Sixteen of the thirty companies indicated that they have prepared organization charts or manuals,

and again many of these were started only in the last few years. Seven companies said that they had set up plans to be used in the future when changes are possible, and a number would like to establish them provided they could secure trained personnel to undertake this job. Seventeen companies indicated that they have written up descriptions of major department and committee functions, and a number indicated that they are now working on such job descriptions.

You may be interested to know that there are still two companies that feel, "That it is contrary to general policy to have formalized responsibility and lines of authority," but this point of view is definitely disappearing.

3. There are a rapidly increasing number of technical developments which will inevitably influence the fire and casualty business and which will accelerate the need for more staff planning in research. I would like to refer to only one, which, in itself, will eventually revolutionize established methods in the recording and processing of our business—electronic office machines.

The Influence of Electronics. It is difficult in a few words even to lay the groundwork for the probable application of electronics to insurance problems. The claims made by the manufacturers of such equipment have greatly whetted the appetite of many insurance executives interested in reducing costs. The basic principle of electronic machines is not new. The binary system which these machines use has been known for centuries. In the binary system only "ones" and "zeros" are used to designate a number instead of the nine numbers of our decimal system.

Electronic machines were perfected, under government sponsorship, during the last war to aid in the speedy solution of complicated mathematical and scientific problems. Business is just beginning to understand and appreciate their application.

What will these electronic brains do? In essence, an electronic computing machine is a device that receives information and instructions about what to do with it; it stores this information in a memory device for use when required; it automatically processes it through a series of logical or arithmetical computations according to instructions; and prints the results. The total process is no different in principle from older computing methods. The difference lies in the tremendous speed with which this equipment acts, the enormous amount of information it can digest simultaneously, and the accuracy of its results. When we hear that some of these machines will add or subtract 16,666 times per second, divide 2,192 times per second and recall factors from "memory" in one twelve millionth (1/12,000,000) of a second, we wonder whether we are standing on the threshold of a new era.

Of all the experts in the insurance business who have investigated this equipment, only a few have expressed an opinion. However, those who have are divided into two camps of widely conflicting views. One group is pessimistic and thinks that the equipment is too costly and not necessary. The other and larger group is composed of optimists who think, or at least hope, pushbutton control for all clerical operations is just around the corner. This latter group visualizes such equipment as a giant clerk who will receive and absorb all kinds of data, and with its gigantic memory and other commensurate talents check rates, code premiums and losses, prepare renewal policies or notices, and put out all types of statements and statistical data with lightning speed. We can expect the answer to be somewhere in between, and the extent to which this

equipment is adopted will depend upon the cooperation between companies and manufacturers and the research done by both.

In the fire and casualty insurance business, the recording of data takes place largely in the field involving policy writing, claims, collection, and so forth. This information is then forwarded to the home office, where it must be identified, audited, edited, coded, and transcribed to some form of automatic equipment. Electronic equipment can greatly reduce the time interval elapsing between the recording of information and the final entry. In other words, we can expect these machines to deliver information in much more detail than ever before in a day or two after the source data has been submitted.

While the machines offer tremendous possibilities, their effectiveness depends entirely upon the operator's ability to express his instructions by mechanical means. These machines, which have been called mechanical morons, cannot think creatively. They must be given complete and accurate information before they can produce intelligent answers. "Programming" is the technical phrase used to describe the manner in which instructions are given to these machines. This is only another call for the scientific approach to management; in other words, management research and planning are prerequisites for the successful use of electronic machines. Insurance companies have much work to do in order to get ready for electronics; every step, every decision, must be reduced to a logical written order. These steps must then be properly coded so that they can be put on the magnetic tape which instructs the machine what to do, and when to do it. In making studies for this type of equipment, a company must take into account not only what it is doing on its present punch card equipment, but must investigate other areas, because it is in these other areas that they can find procedures which eventually will produce material savings. Not until an insurance company can define, in a manual of procedure, every step that is to be taken for every transaction, and instruct its clerical staff accordingly, will the company be ready for electronic data processing equipment. Many companies may very well find too many exceptions will impede the electronic processing of information. A company will be successful with this type of equipment only when it can convert more and more manual routine to automatic instructions for electric programming.

What must management do to get ready for electronic machines? At the electronics conference sponsored by the Insurance Accounting and Statistical Association in April, the following nine steps were set up: (1) Examine the output requirements; simplification and consolidation are the key words. (2) In the light of output requirements, look at the source documents; how can they be simplified and consolidated? (3) Examine the coding structure; can it be simplified and consolidated? (4) Make sure there are no bottlenecks in the transmission of data. (5) Review manual procedures to see what manual areas can be adapted to electronic methods. (6) Study procedure manuals to see whether they are complete and in detail. (This presumes that a company has set up a procedure manual.) (7) Study the departmental organization, particularly in the accounting field, and see how it is affected. (8) Take care of the exceptions and irregularities. (9) Try to mechanize all present operations which are not now mechanized.

The usefulness of electronic machines is dependent wholly upon management research efforts, and companies wanting to avail themselves of the latest developments will have to apply scientific tools to their operations.

Conclusion. Let us ask ourselves in conclusion, to what type of people

should management entrust these important tools? Management planning is a staff function, and therefore only highly trained men who are directly responsible to top management should be delegated with the responsibility of evaluating problems and conditions, and blue printing plans for future action.

Such persons must have a good background in scientific procedures as well as a thorough understanding of practical problems. They must be able to preserve a certain objectivity which will prevent them from focusing all of their attention on any one of the components of the operation, and thereby overlooking other factors which contribute greatly to the final outcome.

It is important to differentiate broad management planning, which I have been talking about, from detailed systems or methods work. The set up of procedures, flow of work, forms control and similar studies is only one small aspect of this planning; it must be subordinated to broader considerations. The creation of a centralized planning and research activity under one head has usually proved the most effective approach. Some companies have set up committees, others have distributed this work among various other offices, only to find that they end up with a large number of detail men, but without a well trained technician who can coordinate the entire program.

Let me repeat, that after ten years of initiating and directing our research activities, I am convinced that research and planning of the sort which will do the most lasting good, is the kind sponsored by an individual company, tailor-made to its own needs. If there were any over-all solution to management problems, no competition would exist in the business. What may be advisable for one company may be unwise for another. Only by careful study of each individual company can management be assured that it will receive the full benefit of scientific management.

The Role of Universities in Developing Insurance Research

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Research has attained an important place in today's business and educational world. Industry is spending substantial sums to learn more efficient ways of producing and distributing goods and services. The individual firm is often motivated to such activity by a desire for greater profits and the need to maintain or improve its competitive position. Much research at the university level finds its impetus in the researcher's desire to expand frontiers of human knowledge for the more effective utilization of human and material resources.

In view of the many pressures being exerted on the insurance business, it is inevitable that research will assume a more important position in company affairs than is now evident. Even if competition did not suggest the need for more efficient operations, a view not widely held, the demand of the public for improved coverage and service indicates the need for new techniques of doing business. Although many of the studies needed to meet this challenge are being prepared by companies and associations, universities and colleges are playing an important role in providing new approaches to insurance problems through research.

The following questions indicate insurance problems which require intensive research:

1. How can victims of motor vehicle accidents be assured of adequate and prompt financial recovery under an economical system of private insurance?

2. How can protection be afforded through commercial insurance against the economic consequences of prolonged and serious disability at a cost which can be borne by persons with moderate and low incomes?

3. How can savings accumulated through the purchase of level-premium life insurance be employed to promote the public interest most effectively in terms of security and satisfactory return to the policyholder, of meeting the needs of business for capital, and of integration with governmental fiscal and monetary policies?

4. How can an adequate level of retirement income be provided superannuated workers during inflationary periods?

5. How can insurance be distributed in such a way that the buyer can coordinate the component parts of his coverage into a logical and economical pattern of protection?

6. How can rate differentials in the several lines of insurance be established so that all classes of policyholders will receive equitable treatment?

Well-financed and broadly-conceived research is needed to determine the social and economic costs of past insurance practices and to evaluate the potential usefulness of new ways of meeting the problem of risk. Experimental research at the operational level is required to test the validity of proposed

solutions. Perhaps the type of intensive research which led to the development of atomic power could produce equally significant results for the insurance business.

Problems of Insurance Research

A major problem of all research in the social sciences grows out of the many variables involved in producing a given effect. Although we enjoy the use of the term, *ceteris paribus*, other things are not always equal and research based on this assumption may have little practical use. A logical system can be developed by the use of various assumptions relative to the economic order, but any pragmatic test of conclusions derived will be negative if the assumptions are unrealistic. If one were studying the relative rates of growth of agency companies versus direct-writing companies, it would be presumptuous to impute all differences in growth to the method of distribution employed. The difficulty of determining the relative significance of the sales organization, the type of service provided, the quality of top management, the foresight of the underwriting and investment staffs, and the wisdom of the claims policy is clearly evident. The relative significance of each of these influences must be assessed if the reasons for different growth-rates are to be uncovered.

A second problem grows out of the first. Any detailed analysis of the influences at work in the insurance business requires the accumulation of a substantial volume of information. The cost in time and money implicit in this situation is an important obstacle to research by individual faculty members and graduate students. In view of this limitation, significant studies have been completed. The insurance business has shown far less willingness to support research than have other areas of business. Exceptions would include the contributors to the Huebner Foundation for Insurance Education and the Griffith Foundation for Insurance Education, firms making specific research grants to universities, such as New York Life Insurance Company, and associations making similar grants, such as the Life Insurance Agency Management Association.

A third difficulty confronting those who seek to study the operation of the insurance system represents a serious threat to scientific inquiry. This relates to the unwillingness of some insurance company and association officials to release information which is vital to research into insurance problems. There have been specific instances where graduate students have been denied access to operational statistics which were indispensable for the conduct of a particular investigation. This reticence may arise from a concern over aiding competitors or from a fear of seeing the results of an objective study. This type of attitude is offset by the more prevalent spirit of cooperation many companies have displayed in their attempts to solve common problems.

The secretiveness of one insurer was evidenced when a graduate student proposed a study into the economic value of commercial accident and health insurance. He planned to interview recent claimants of one insurer in order to evaluate the adequacy of benefits received in terms of the financial burden imposed by the insured disability. He requested the names of and a statement of coverage for claimants in a given geographical area. The request was flatly refused. A possible conclusion is that the company's officials lacked confidence in the job they were doing.

It would be most unfortunate if the reluctance of certain groups to make detailed underwriting and loss statistics available is due to a concern that

analysis by impartial persons might lead to criticism of existing procedures. The future of commercial insurance depends on objective analysis of the principles and practices employed in order that better approaches may be devised. The life insurance business should be interested in research as to why life companies are receiving a smaller share of disposable personal income per family in the United States than was true in 1930. If fire insurance companies cannot develop means to persuade insureds to carry insurance proportionate to the value of their property, external pressures might lead to other measures for the protection of property. Such matters require intensive study into the behavior of people. Research must be undertaken to define the problems and to test possible solutions.

The fourth deterrent to a vigorous insurance research program has been the lack of coordination between various groups and individuals engaged in this work. Although much is to be gained by having several persons seek solutions to one problem, this process is a bit wasteful when consideration is given to the vast area which must be explored as compared with the limited number of research workers. This situation is illustrated by doctoral candidates of several institutions researching exactly the same question.

A final problem is the limited personnel on university and college campuses concerned with insurance research. This probably grows out of the small numbers of academic people involved in insurance teaching. School administrators are prone to limit faculty size in an academic area as new as insurance. It is to be hoped that as additional help is given to those now teaching in this field, more will be able to include research as part of their academic load. There is ample indication that many are anxious for that day to arrive.

Areas of Insurance Research in the Academic Field

The information upon which this review has been based was obtained through a survey sent to teachers of insurance, bureaus of business research, deans of business schools, and chairmen of departments of economics throughout the United States and its possessions and Canada. The survey disclosed that approximately two hundred doctoral dissertations and faculty research projects have been completed or undertaken during the period from January 1, 1950 to December 31, 1953. The complete results of the study, including a summary of research activities of insurance companies and associations, state departments of insurance and employment security, economic foundations, Federal agencies, and labor unions, will be published in 1954 by The Charles W. Griffith Memorial Foundation for Insurance Education.

This paper is not a catalog of all insurance research undertaken by university people. Few specific projects will be reported. Those indicated under the following headings are suggested as examples of the type of work being done and serve as a reference point for a brief discussion of the various areas of research.

1. Social Security—The field of social security has received considerable attention from researchers on university and college campuses. Their primary interest appears to be in the area of the superannuated and the unemployed worker. It might be noted that if the rating plans employed by commercial insurers were to be scrutinized as thoroughly as unemployment compensation insurance rating has been, our information on this subject would be considerably enriched.

2. Non-Governmental Pensions—The interest of graduate students in the field of social security has not been entirely in the area of governmental systems. The problems of private pension planning have received particular attention at Pennsylvania and Wisconsin. Historical and theoretical examinations of the problems of the aged in industry have been undertaken at such universities as Columbia, Iowa, St. Louis, and Wisconsin.

3. Disability Insurance—Considerable attention is currently being directed to the area of disability insurance. Studies have been completed at Columbia, Ohio State, and Wisconsin on methods of paying for medical care, the Health Insurance Plan of Greater New York, commercial disability coverage of Ohio workers, California's Unemployment Compensation Disability Act, and catastrophic accident and health insurance. The role of collective bargaining in securing disability coverage for workers has been considered at Princeton and the New School for Social Research. Students at three schools are now studying non-occupational disability coverage. Work is being done at several institutions on compulsory health insurance. Research is being conducted at Pennsylvania on the specific nature of three different types of disability insurance contracts. Major medical expense coverage is being analyzed at Indiana.

4. Services of Insurance—Few inquiries have been undertaken to determine whether various forms of insurance are serving the function for which they were designed. The Bureau of Busines Research of Boston University and Dr. G. Wright Hoffman of the University of Pennsylvania have examined some of the benefits accruing to society from life insurance. The economic application of business life insurance in selected communities has been examined at the University of Illinois. There is much fertile ground for exploration in this area and it is quite conceivable that certain forms of insurance are not properly serving the interests of insureds. It would be interesting to determine whether the extended coverage endorsement and the additional extended coverage endorsement are affording the simplest and most economical answer to the problems of those adding such coverage to their fire contract.

An interesting experiment is being conducted at one university to determine the value of a particular form of insurance. Two doctoral candidates with quite dissimilar backgrounds and major interests are seeking to resolve the issue raised by many marketing people as to whether credit insurance is justified from an economic standpoint. One is approaching the question from the viewpoint of the insured. He will base his analysis on a review of case studies of firms having such insurance to determine its effect on their financial position and its cost in terms of benefits received. The other student will consider the question from the standpoint of the insurer and through an analysis of insurance company records seek to evaluate the coverage provided.

5. Market Analysis—An area of study closely related to that just described involves the analysis of markets for insurance. Interesting work was done along these lines by Alice M. Morrison at Iowa State University. In her dissertation, "Consumer's Choice in Insurance," she sought to explain the factors which enter into a decision whether to insure or not. A better understanding of this process is a primary step in any analysis of markets for this service.

It is becoming increasingly apparent that insurance companies are concerned with knowing their markets. As a step in this direction, the Farm Bureau Insurance Companies are sponsoring a study of insurance consumption

patterns in cooperation with the Ohio State University. One and a half to two hour interviews were conducted with the heads of one hundred families in Columbus. Information was obtained as to the types and amount of all insurance held by various types of family units in order to determine what correlations exist between insurance owned and such factors as income, size of family, occupation, and education. The studies of the Survey Research Center of the University of Michigan and of Mehr and Cammack at the University of Illinois are contributing information along these lines for the life insurance market.

6. Risk and Risk-Bearing—Aside from the writings of Hardy, Haynes, Knight, Morton, and Willett, little attention has been given to theoretical studies of risk and risk-bearing. Two dissertations are currently being prepared in this field. Irving Pfeffer of the University of Pennsylvania staff is seeking to analyze the relation of insurance to the economic theories of production, distribution, and consumption. John A. Boan of Ohio State is examining the effect of risk and uncertainty on agricultural productivity. Research into the effects of uncertainty on resource use and income was completed at Iowa State in 1951 by Sydney Staniforth.

7. History of Insurance—In many areas of business research there has been a growing interest in histories of institutions and organizations. Perhaps a sign of growing maturity in the field of insurance research can be found in the insurance histories being prepared at Indiana, Pittsburgh, and New York University. Two of these involve life insurance companies, and one is a history of the National Association of Life Underwriters. A dissertation at Columbia extends the idea to a history of the Federal Deposit Insurance Corporation. Work along these lines can be most constructive if it reveals how management has met certain problems and has evolved new business techniques.

8. Insurance Contracts—There is little to support university research into particular insurance contracts unless it be designed to test the efficacy of certain contractual provisions. A purely descriptive review of the terms of a form should be entrusted to writers of manuals. Research along these lines should find its goal in an exploration of the legal implications of contracts or in an analysis of how combinations of coverages might be affected. Probably the most important aspect of contract analysis would fall in the area of measuring the usefulness of the form in serving the public's needs. This concept was considered above.

9. Home Office Organization and Management—The insurance business is concerned with the possibility of reducing costs for the insuring public. For this reason, organizational and managerial problems of insurers should be thoroughly examined. Studies relative to the planning, organizing, and controlling of insurance companies have been undertaken at Columbia, Illinois, Ohio State, and Pennsylvania. It is interesting to note that most constructive work in this area has been produced by persons whose main interests lie outside insurance, e.g., Oscar Serbein of Columbia, David Schwartz of Ohio State, and Elizabeth Lanhan of Texas.

10. Insurance Agency Management—Insurance costs are affected not only by home office operations but also by those in the field. Life agency management has been under close surveillance by the Life Insurance Agency Management Association. Similar studies are needed in the property-liability field as no such organization exists in this area. Work along these lines is being done at Indiana and Iowa.

11. Rate-Making—Little research has been done in academic circles on the problems of rate-making. In view of the complexity of the subject, studies are needed showing the detailed operation of various rating systems such as Williams and Holzberg completed at Columbia and Wisconsin, respectively. Hensley is doing similar work at California. It would also be helpful if more investigations could be conducted into such specialized aspects of rating as were discussed by Hedges of Illinois and Heins of Wisconsin in recent studies.

12. Investments of Insurance Companies—One of the most popular areas for research into insurance problems has been the investment practices of insurers. It might be suggested that there has been almost a plethora of general reviews of the whole question. It is apparent that there is now a need for specific attention to such questions as: (a) why insurers behaved as they did at certain times, (b) why insurers have been interested in certain investment outlets and their success with these securities, and (c) the effect of insurance company operations on the security market. This type of analysis has been forthcoming from such schools as Harvard, Northwestern, and Pennsylvania.

13. Regulation of Insurance Companies—As has been true with respect to investments, many general reviews have been written on the development of insurance regulation and its impact on insurers. In view of the foundation laid by these scholars, it should now be possible to devote more attention to specific phases of the regulatory problem. Examples of this type of work would include Cline's, "Valuation of Life Insurance Assets," and Henningsen's, "The Development, Scope and Method of New York's Regulation of Insurance Costs." Both projects are being done at the University of Pennsylvania.

Recommendations

One of the most heartening signs in the field of insurance research is the growing interest of both company people and academicians in this type of work. As increasing numbers of worthwhile studies are released on our campuses, their value as guides to company policy will become more evident and a more responsive attitude toward university research should develop.

There are five recommendations which might be suggested as a means of developing the effectiveness of insurance research.

1. Researchers should place more stress on analytical research versus the primarily descriptive type. Hypotheses should be developed and criteria established by which the relative value of different solutions to a problem can be tested.

2. Research should be directed on an increasing scale toward matters which are of practical importance in terms of the provision of sound and economical insurance for the public.

3. A free flow of information between insurance organizations and universities must be maintained so that research workers will have ready access to materials necessary for analysis of a problem.

4. Financial support from insurance groups is needed to assist those interested in conducting research into problems bearing on the insurance business. Contributors should neither demand nor expect that conclusions will prove the validity of preconceived ideas or existing practices.

5. Insurance teachers might encourage colleagues in other fields to direct master's and doctoral candidates toward insurance problems, as a fresh approach to a problem often produces a new answer.

Insurance Mortality Investigations of Physical Impairments

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Metropolitan Life Insurance Company

Life insurance mortality investigations may be regarded as a classical example of long range follow-up studies. They usually deal with relatively large numbers of persons who have been traced automatically for long periods of time through the circumstance of their being insured.

This paper (1) draws attention to the salient features of several types of life insurance mortality investigations in which various factors, including physical impairments, have been studied; (2) describes the essential procedures used in such long range follow-up studies; (3) outlines the scope and the principal findings of the more important investigations of the mortality associated with physical impairments, and (4) discusses both the limitations and the special value of the data for medical science and public health.

Life Insurance Mortality Investigations

Life insurance companies have made numerous investigations of the mortality among different classes of insured lives, as well as among their own employees. Such studies have been carried out for many different purposes but primarily as an aid to the more efficient conduct of the life insurance business, and have focused attention on a wide variety of factors affecting mortality. Table 1 lists the several types of life insurance mortality investigations, with details regarding the persons covered, the purposes of the investigations, and the factors considered.

As shown in Table 1, insured lives are commonly classified according to the type of insurance owned: Ordinary (insurance issued to individuals in amounts of $1,000 or more), Industrial (insurance issued to individuals in relatively small amounts, premiums being payable weekly or monthly and usually collected at the home of the insured), Group (insurance issued without medical examination covering groups of employees), Total and Permanent Disability Benefits (issued in conjunction with Ordinary policies) and Annuities. Studies of physical impairments have been made largely on the basis of the experience among persons insured under Ordinary policies. Applications for such insurance develop very much more information about the physical characteristics of the applicant than is the case in Industrial insurance. No such information is available in Group insurance or for Annuitants.

Currently, about 35,000,000 people in the United States are insured under Ordinary policies. Over 2,000,000 of them have physical impairments sufficiently serious to require payment of extra premiums for their insurance. About 7,000,000 of the Ordinary policyholders have included in their policies some form of coverage against Total and Permanent Disability. The experience under this coverage provides unique information not only on the incidence of prolonged disability from different causes, but also on the mortality among insured lives so disabled.

It is pertinent to note that in some large life insurance companies employees have had annual physical examinations over a period of years. From the records of such examinations it is possible to make long range follow-up studies that relate the mortality experienced to the findings on successive physical examinations. In mortality investigations of insured lives it is possible to relate the mortality experienced only to the findings on the medical examination at time of issue of the insurance or to the impairments recorded as part of the medical history on the application for insurance.

Procedures Used in Life Insurance Mortality Investigations

The procedures commonly used for making life insurance mortality investigations of physical impairments were developed largely to facilitate intercompany studies. Since about 1910 such intercompany studies have been made periodically by the Joint Committee on Mortality of the Actuarial Society of America and the Association of Life Insurance Medical Directors. In 1925, this Committee published a medical impairment code and a description of the standard mortality cards to be used.[1] The procedures generally followed today, whether for individual company or for intercompany studies, represent an outgrowth of the experience with the 1925 code and standard mortality cards. The essentials of the current procedures are summarized in Table 2.

One point noted in Table 2 merits special emphasis—that dealing with the types of cases to be included in or excluded from an investigation. Excluded would be cases with an impairment under study that also present other impairments or factors such as would preclude the issuance of insurance at standard premium rates. (As a result, any estimate of the prevalence of physical impairments based on the findings of life insurance morbidity investigations of physical impairments would understate the actual prevalence). On the other hand, cases with an impairment under study that also present other minor impairments or factors such as would not preclude the issuance of the insurance at standard premium rates would be included. Because these minor impairments or factors usually have relatively little effect on mortality, the findings of life insurance mortality investigations of physical impairments may be considered as little influenced by extraneous factors.

Also noteworthy is the form in which the findings customarily have been presented. Because the data have usually been analyzed by broad age groups at issue, by duration since issue of the insurance (and therefore also by duration since the time when the impairment was first recognized) and by cause of death, they readily lend themselves to answering such questions as: "Is the excess mortality concentrated in any particular age range?", "How long does the excess mortality persist?" and "With what particular causes of death is the excess mortality associated?"

Table 2 does not indicate the methods used to compute the number exposed to the risk of death from the records of the individual policies included in an investigation. This number is readily determined because each insured life automatically is kept under observation so long as payment of premiums is continued. The computation of the number exposed to risk consist essentially of combining properly the experience on insured lives who have been under

[1] Medical Impairment Code and Description of Mortality Cards, published by Joint Committee on Mortality of the Actuarial Society of America and the Association of Life Insurance Medical Directors, 1925.

observation for varying periods of time. There is an extensive actuarial literature on this subject. For a simplified presentation of the methods commonly used, the reader is referred to the paper by E. W. Marshall, "Principles Underlying Exposed to Risk Formulae," Transactions of the Actuarial Society of America, Volume XLVI, pp. 10-50, 1945.

Scope and Findings of the Principal Investigations of Physical Impairments

The most comprehensive data on the mortality of insured lives with various physical impairments are contained in a series of intercompany investigations. The more important of these studies, all based on the experience under Ordinary insurance policies, are:—

1. Medico-Actuarial Mortality Investigation, 1912-14
2. Medical Impairment Study 1929, and its Supplement
3. Impairment Study 1936
4. Impairment Study 1938
5. Blood Pressure Study 1939, and its Supplement

Studies of the experience of individual companies also have contributed much information, but because of the considerably smaller volume of data their findings are not as authoritative as those of the larger intercompany investigations. Among the more notable of the individual company studies are those presented in a series of papers on selected medical impairments by A. Hunter and O. Rogers;[2] another series on various medical impairments by L. I. Dublin in collaboration with others;[3] a number of papers by different authors presenting recent experience as to the effect of build on mortality; and several papers presenting the results of follow-up studies of disabled policyholders.

The scope of the principal intercompany investigations and of some of the individual company studies is outlined in Table 3. The more significant findings are detailed below.

1. The Medico-Actuarial Mortality Investigation developed tables of average weights for men and women by age and height. These tables remain in general use today because subsequent studies showed that there has been relatively little change in average weights by age and height over the years. The extensive mortality experience according to variations from average weight by age and height brought out that:

a. Mortality increased with decreases in weight at the younger ages.
b. Overweight was not a serious impairment at the younger ages, but its adverse effect increased with advance in age.
c. Mortality of persons with abdominal girth greater than chest expanded was particularly high.
d. Overweights had high death rates from heart disease, diabetes, nephritis, and cerebral hemorrhage.
e. Lowest mortality at ages under 35 was found among those 15 to 20 pounds above average, but at ages over 35 among those 5 to 10 pounds underweight.

There were also 76 groups of impairments studied in the Medico-Actuarial

[2] Transactions of the Actuarial Society, Vols. XXIII-XXX.

[3] Transactions of the Association of Life Insurance Medical Directors, Vols. XV, XIX-XXVI and XXVIII.

Investigation, based on the experience among lives insured at standard premium rates only.

2. The Medical Impairment Study 1929 and its Supplement, confirmed the findings of the Medico-Actuarial Mortality Investigation as to average weights at ages 25 and over, and also as to the effect on mortality of variations from average weight by age and height. New tables of average weights for males and females in the age range 10-24 were developed in this study.

The study centered, however, on 122 groups of physical impairments, including a number of combinations of two impairments treated as one. The aggregate experience on lives insured, at both standard and substandard premium rates, involved nearly 1,100,000 policies and 41,000 deaths. Among its more important findings were:—

a. Mortality associated with apex systolic murmurs not transmitted or inconstant was only somewhat higher than that among standard risks, but quite high (about 250 percent of that among standard risks) for apex systolic murmurs transmitted to the left. The mortality associated with these murmurs was even higher when accompanied by hypertrophy of the heart or a history of rheumatic fever. The mortality of persons with heart murmurs was also higher among those who engaged in strenuous labor.

b. Mortality associated with elevated systolic pressure increased rapidly with rise in blood pressure.

c. Mortality associated with a finding of albumin in the urine increased rapidly with the amount and persistency of the albumin findings. When albumin in the urine was found in combination with overweight or elevated blood pressure, the mortality was higher than would have been expected from a consideration of the extra mortality separately associated with each of these conditions.

d. The mortality associated with a finding of sugar in the urine increased rapidly with the amount of sugar found.

3 and 4. The Impairment Study 1936, and the Impairment Study 1938, were intended as further supplements to the Medical Impairment Study 1929. Together these two studies covered 42 groups of physical impairments. The aggregate experience on lives insured at both standard and substandard premium rates involved about 140,000 policies and 4,500 deaths. Among the more important findings of these two studies were:—

a. Mortality among persons with a history of cancer five or more years prior to the issue of the insurance was about double that among standard risks. The excess mortality was due primarily to cancer.

b. Mortality among persons with a history of unoperated gastric ulcers was moderately higher than among standard risks, and decreased with time elapsed since last attack; mortality among persons with a history of gastric ulcers surgically treated was appreciably higher than among standard risks. The mortality associated with a history of duodenal ulcers showed a similar pattern, but at a somewhat lower level.

c. Mortality among persons with a history of removal of the gall bladder was almost the same as among standard risks; persons with a history of drainage of the gall bladder had a moderately higher mortality than standard risks.

d. Mortality among persons with a history of renal stone or colic with some complications, surgically treated, was also moderately higher than among standard risks.

5. The Blood Pressure Study 1939 and its Supplement concerned themselves solely with mortality according to variations in both systolic and diastolic (fifth phase) blood pressures by age, separately for cases with and without associated minor impairments. The aggregate experience on lives insured at both standard and substandard premium rates involved more than 1,300,000 policies and 49,000 deaths. The main conclusions of this study were:—

a. A systolic blood pressure of 20 mm. above average or a diastolic blood pressure of 15 mm. above average resulted in distinctly higher mortality than among standard risks.

b. Mortality was higher where both systolic and diastolic pressures were high.

c. The combination of elevated blood pressure with certain minor impairments, particularly cardiovascular-renal impairments, produced appreciably higher mortality than would be expected from a consideration of the extra mortality separately associated with each of these conditions.

d. The lowest mortality was found among those with systolic pressures 5 to 15 mm. below average, and also among those with below average diastolic pressures.

6. More recently, several investigations were made to determine whether the mortality among overweights and underweights had changed. These investigations have all pointed to the conclusion that moderate overweight is currently associated with a relatively higher mortality than was found in previous studies, especially at the younger ages. The indications also are that average weights for men have increased somewhat, while average weights for women have decreased. One of the studies presented further evidence that women tend to withstand overweight better than men.

7. Special interest attaches to several recent follow-up studies of disabled policyholders because of the information produced regarding the mortality associated with rather serious impairments. One study traced the experience of insured lives disabled by pulmonary tuberculosis both during disability and subsequent to recovery. It showed that in minimal cases the mortality after recovery ranged from 150 to 300 percent of that among standard risks, in moderately advanced cases from 150 to 500 percent of standard, and in far advanced cases from 200 to 600 percent of standard. Three studies dealt with insured lives disabled by various forms of organic heart disease. One of these indicated that the mortality among persons with myocardial infarction was at least 10 times that among standard risks. Another, tracing men who had recovered sufficiently from coronary occlusion to be considered able to return to work, showed mortality from 3 to 7 times that among standard risks.

In 1951, the Committee on Mortality under Ordinary Insurances and Annuities of the Society of Actuaries undertook a comprehensive investigation of the mortality experienced during the previous fifteen years among insured lives with various medical impairments, other than abnormal build or abnormal blood pressure. This study covers some 132 groups of impairments and medical histories, including a number of combinations of two impairments treated as one. The aggregate experience on lives insured at both standard and substandard premium rates involves about 725,000 policies and 18,000 deaths. The

average duration of the exposure is over 6 years. Among the more important groups of impairments being investigated are heart murmurs, pulse abnormalities, family history of cardiovascular-renal diseases, epilepsy, neurasthenia and psychoneurosis, pulmonary tuberculosis, gastric and duodenal ulcers, gall bladder disorders, albuminuria, glycosuria, hysterectomy and salpingectomy, history of cancer, family history of cancer, and family history of diabetes. The report on this investigation (referred to as the 'Impairment Study 1951') is due to be published by the Society of Actuaries in the spring of 1954. This report should shed much light on the extra mortality recently associated with various physical impairments.

Limitations of Life Insurance Mortality Investigations

There are a number of limitations on life insurance mortality investigations of physical impairments that should be understood before their findings are applied to problems in medicine and public health.

Persons insured under Ordinary policies represent a highly selected sample of the population, having been drawn chiefly from white adult males in the middle and upper socio-economic groups. Since from three to four percent of the applicants for Ordinary insurance are rejected, including virtually all persons suffering from serious organic diseases or from acute illnesses, the physical impairments found among persons insured under Ordinary policies are confined largely to the less severe, non-acute and non-recurrent conditions. To investigate the mortality associated with the more serious impairments it is necessary to fall back on follow-up studies of policyholders who at time of issue of their insurance were free of such impairments, but later developed them and became sufficiently disabled to qualify for disability benefits on account of such impairments.

Because life insurance mortality studies of physical impairments were designed primarily to yield data for underwriting purposes and for the calculation of extra premiums, the results have been presented customarily in the form of ratios of actual to expected deaths, with the expected deaths computed on the basis of the contemporaneous experience among standard risks. The mortality rates among standard life insurance risks provide a very appropriate yardstick for underwriting purposes and for the determination of extra premiums, but this yardstick is not always as meaningful for clinical medicine or public health. For one thing, the use of such a yardstick makes it possible to distinguish between much finer mortality gradations than would be recognized as significant in clinical medicine or even in public health.

Particularly important for a fuller understanding of the findings of life insurance mortality investigations of physical impairments is an appreciation of the limitations of the information regarding such impairments obtained on applications for Ordinary insurance. The great majority of the applications in which an applicant admits some significant impairment or medical history are accompanied by a report on the medical examination of the applicant. This medical examination is usually not as comprehensive or as thorough as a diagnostic examination in clinical practice, where the physician is in a position to study a patient for a longer period of time, more intensively, and with his full cooperation. Applicants for life insurance not infrequently forget or try to conceal unfavorable aspects of their personal or family medical histories. Even when reasonably complete details are elicited, there are usually practical limits on the extent to which it is feasible to check up on indefinite statements and

vague diagnoses reported on applications for life insurance. As a result, many of the physical impairment classifications in life insurance mortality studies represent somewhat undifferentiated conditions, which cannot be characterized as precisely as is sometimes possible in clinical studies.

The findings on physical impairments in life insurance mortality studies are, however, relatively free from the effects of extraneous factors and from such biases as arise in clinical medicine when individual physicians, surgeons, clinics or hospitals specialize in particular types of cases. On the other hand, such findings are occasionally affected by the underwriting practices of the companies. Also, because the findings are usually presented for both sexes combined, it is sometimes necessary to make allowance for an unduly high or an unduly low proportion of female lives in the experience.

Table 4 presents a summary of the more important limitations of life insurance mortality investigations of physically impaired lives.

Value of Findings for Medicine and Public Health

Periods of follow-up of fifteen years or longer have been quite common in life insurance mortality investigations of physically impaired lives. In the great majority of the impairment classifications studied, the experience has been based on observation of at least 3,000 lives.

The results of life insurance mortality investigations have been relatively free of any bias arising from failure to trace the experience among those withdrawing. Considerable evidence has been accumulated to show that insured persons who cease paying premiums and thus remove themselves from automatic observation are, as a group, not subject to mortality higher than average. On the one hand, persons not in good health are strongly motivated to keep up payment of premiums on their insurance. On the other hand, lives physically impaired at the time of application whose condition subsequently improves may be able to obtain insurance later at lower premium rates and thus withdraw from the experience. Accordingly, we may regard the life insurance mortality experience on physical impairments as characteristic of persons who, by and large, continue to have the impairments while insured.

For the reasons just indicated and also because both exposures and deaths can be determined accurately, the findings on physical impairments in life insurance mortality investigations can be expressed in numerical terms with a high degree of precision. In other words, on the basis of such studies it is frequently possible to make very much more refined prognoses than could be deduced from clinical statistics. Although such more refined prognoses may have little direct application to individuals, they constitute a distinct advance in our understanding of the association between various physical impairments and mortality.

The findings of life insurance mortality investigations are particularly valuable for those impairments that fall in the broad region between good health and disease as recognized by clinicians. Such impairments have not been studied intensively in clinical medicine. Prominent among them are overweight and moderate elevation in blood pressure which, today, are of special interest to students of the natural development of the chronic diseases. Also pertinent for clinical medicine are the findings on heart murmurs, epilepsy, gastric and duodenal ulcers, gall bladder disorders, and history of cancer. The findings on family histories of cardiovascular-renal diseases, insanity, cancer,

and diabetes add to the evidence of the importance of heredity in disease. Data on tuberculosis and acute articular rheumatism have direct application in the field of infectious diseases. In the case of neurasthenia, psychoneurosis and insanity, the findings may be similarly helpful to psychiatrists, if only because they provide a measure of the risk of suicide among persons with a history of these conditions.

To the field of public health, life insurance mortality investigations have contributed notably through their studies of the mortality associated with overweight. These results formed the basis of the recent countrywide campaign on overweight control. In like manner, life insurance findings on heart impairments have been used for health education purposes.

TABLE 1

Types of Life Insurance Mortality Investigations

Persons Covered	Purpose of Investigations	Factors Which Have Been Considered		
		Biological	Social	Medical
Ordinary Life Insurance Policyholders	For use in computation of premiums, reserves, and dividends To obtain general measures of mortality among Ordinary life insurance policyholders To appraise the effect on mortality of different factors considered in underwriting	Age Sex Race	Place of residence at time of issue Occupation at time of issue Marital status at time of issue Economic status	Height and weight at time of issue Findings on physical examination for life insurance (including blood pressure and urinalysis) at time of issue More important details of personal medical history Some items of family medical history
Industrial Life Insurance Policyholders	For use in computation of premiums, reserves, and dividends To obtain general measures of mortality among Industrial life insurance policyholders To serve as a basis for the study of mortality trends among urban wage earners	Age Sex Race	Place of residence at time of issue Occupation at time of issue Marital status at time of issue	Height and weight at time of issue In a very small proportion of cases, some findings on physical examination (usually confined to the heart and blood pressure)
Group Life Insurance Certificate Holders	For use in computation of premiums, reserves, and dividends To obtain general measures of mortality among Group life certificate holders To determine mortality in different industries	Age	Industry	
Persons insured under Total and Permanent Disability Benefits issued with Ordinary Life Insurance	To determine rates of disability To obtain general measures of mortality among persons with different types of disability during continuance of disability To determine rates of recovery from different types of disability To obtain general measures of mortality after recovery from different types of disability	Age Sex Race	Place of residence at time of issue Occupation at time of issue Marital status at time of issue Economic status	Cause of disability Detailed findings on physical examination to determine disability Findings on physical examination for life insurance (including blood pressure and urinalysis) at time of issue More important details of personal medical history
Annuitants	To provide bases for premiums and reserves To obtain general measures of mortality among annuitants To study variations in mortality before and after retirement	Age Sex	Place of residence at time of issue	
Insurance Company Employees	To obtain general measures of mortality among insurance company employees To relate the mortality experienced to the findings on annual physical examinations and to medical and personal history	Age Sex	Marital status	Height and weight each year Detailed findings annual physical examinations (including blood pressure, urinalysis, and various other tests) Detailed personal medical history

TABLE 2

Procedures Used in Life Insurance Mortality Investigations

Studies based on Ordinary life insurance experience

Individual Company Investigations (Large Companies)

1. Punch cards routinely prepared for all (or a sample of) policies to be included in investigations.
2. Each punch card carries identifying items as well as coded data for height and weight, blood pressure, medical impairments (including results of special tests such as urinalysis), and occupation.
3. Codes for medical impairments and occupation usually used are those prepared by Joint Committee on Mortality of Actuarial Society of America and Association of Life Insurance Medical Directors.
4. In each classification there are included only those cases which presented the factor under study and no other rateable factors; that is, cases are eliminated when they present also other factors which would have precluded the issuance of the insurance at standard premium rates.
5. Actual deaths (numbers of policies or amounts of insurance terminated by death) in each classification are compared with corresponding deaths (subdivided by age at issue and duration since issue of insurance) that would have been experienced on the basis of some suitable mortality standard (expected deaths).
6. Findings have customarily been analysed by age groups at issue, by duration from issue of insurance, and by cause of death.
7. For further details of methods used, consult
   "An 80-column punch card for mortality statistical purposes and the procedure followed in its preparation" by John F. Ryan, Transactions, Society of Actuaries, Volume 1, pp. 295-342, 1949.

Intercompany Mortality Investigations

1. Committee on Mortality under Ordinary Insurances and Annuities of the Society of Actuaries (successor to the Joint Committee on Mortality of Actuarial Society of America and Association of Life Insurance Medical Directors) functions as the central compiling, analyzing, and directive agency for intercompany investigations.
2. Individual companies contributing to investigations submit (a) summary sheets for each classification showing (i) exposed to risk, (ii) 'expected' deaths, and (iii) actual deaths, tabulated by broad age groups and durations, and (b) punch cards for individual deaths.
3. Suitable mortality standards are developed from the experience under policies issued at normal premium rates for the period of years covered by an investigation.
4. Special tables are prepared to serve as yardsticks of mortality by cause of death.
5. In each classification there are included only those cases which presented the factor under study and no other rateable factors.
6. Actual deaths (numbers of policies or amounts of insurance terminated by death) in each classification are compared with corresponding deaths (subdivided by age at issue and duration since issue of insurance) that would have been experienced on the basis of the mortality standard chosen (expected deaths).
7. Findings have customarily been analyzed by age groups at issue, by duration from issue of insurance, and by cause of death.
8. For further details of methods, consult
   "Mortality Statistics for Life Insurance Underwriting" by E. A. Lew, Journal of the American Statistical Association, Volume 43, pp. 274-287, 1948.

TABLE 3

Scope of Life Insurance Mortality Investigations of Physical Impairments

Studies based on Ordinary Life insurance experience

Investigation	Period Covered	Impairments Studied
1. Medico-Actuarial Mortality Investigation (five volumes published 1912 to 1914)	From 1885 to 1909; maximum period of follow-up 25 years	A. *Build* Mortality experienced according to variations from average weight by age and height; tables of average weights for men and women by age and height were developed in this connection. Abdominal girth greater than chest expanded. B. *Physical Impairments* 76 groups of physical impairments and medical histories subclassified by duration and severity; among the more important of these were: Acute articular rheumatism Rapid pulse: 90-100 and over per minute Intermittent or irregular pulse Family history of heart disease Family history of apoplexy or paralysis Epilepsy Neurasthenia or nervous prostration Sunstroke or heat prostration Family history of insanity Pleurisy Asthma Family history of tuberculosis Gall bladder disorders Fistula in ano Albuminuria Renal stone or colic Gout Glycosuria Syphilis Non-pulmonary tuberculosis Spinal curvature Hernia Excessive use of alcohol
2. Medical Impairment Study 1929 (published 1931) Supplement to Medical Impairment Study 1929 (published 1932)	From 1909 to 1918; maximum period of follow-up 20 years on physical impairments and 45 years on build; average period of follow-up on physical impairments nearly 5 years	A. *Build* Mortality experienced according to variations from average weight by age and height; new tables of average weights for men and women at ages under 25 by height were developed in this connection. Abdominal girth greater than the chest expanded B. *Physical Impairments* 122 groups of physical impairments and medical histories subclassified by duration and severity among the more important of these were: Heart murmurs— Apex, systolic constant, not transmitted constant, transmitted to left inconstant Apex, presystolic or diastolic, constant Basic, aortic area systolic, constant, not transmitted systolic, constant, transmitted diastolic Basic, pulmonic area, systolic, not transmitted Hypertrophy of the heart Acute articular rheumatism Pulmonary tuberculosis Chronic bronchitis Pleurisy Asthma Family history of tuberculosis Gastric ulcers Duodenal ulcers Gall bladder disorders Fistula in ano Albuminuria Casts Renal stone or colic Nephritis Nephrectomy Anemia Glycosuria Goitre Family history of diabetes Syphilis Non-pulmonary tuberculosis Spinal curvature Blindness Deafness with mutism Excessive use of alcoh

TABLE 3 (continued)

Investigation	Period Covered	Impairments Studied
		Rapid pulse: 90-100 and over 100 per minute Intermittent or irregular pulse Elevated blood pressure Family history of apoplexy or paralysis Epilipsy Neurasthenia or nervous prostration Fractured skull Family history of insanity
3. Impairment Study 1936 (published 1936)	From 1920 to 1935; maximum period of follow-up 15 years	*Physical Impairments* 42 groups of physical impairments and medical histories subclassified by duration and severity; among the more important of these were: Intermittent or irregular pulse; Family history of insanity; Asthma; Gastric ulcers; Duodenal ulcers; Gall bladder disorders; History of cancer; Albuminuria; Albuminuria with casts; Casts; Renal stone or colic; Nephritis; Nephrectomy; Anemia; Goitre; Family history of diabetes; Syphilis; Deaf mutism
4. Impairment Study 1938 (published 1939)	From 1925 to 1937; maximum period of follow-up 12 years	
5. 1939 Blood Pressure Study (published 1940) Supplement to Blood Pressure Study (published 1941)	From 1925 to 1938; maximum period of follow-up 13 years; average period of follow-up 4½ years.	Mortality experienced according to variations in systolic and diastolic (fifth phase) blood pressures by age, separately for cases with and without associated minor impairments.
6. Recent Studies of the Effect of Build on Mortality		
a. F. B. Blair—TASA, 1949	From 1937 to 1947; maximum period of follow-up 27 years	Mortality experienced according to variations from standard weight by age and height.
b. D. N. McCormick-TASA, 1949	From 1920 to 1945; maximum period of follow-up 25 years	Mortality experienced according to variations from average weight by age only.
c. L. I. Dublin and H. H. Marks—TALIMD, 1951	From 1925 to 1950; maximum period of follow-up 25 years	Mortality experienced according to variations from average weight by age and height; also mortality experienced among overweights who reduced.
d. N. Brodie—TSA, 1952	From 1940 to 1949; maximum period of follow-up 9 years	Mortality experienced according to variations from average weight by age and height; new tables of average weights for males and females developed in this connection.
7. Recent Follow-up Studies of Disabled Policyholders		
a. P. Shepherd—TALIMD, 1948	From 1919 to 1948 maximum period of follow-up 30 years	Pulmonary tuberculosis
b. M.L.I. Co.—Statistical Bulletin September 1950	From 1934 to 1947 maximum period of follow-up 13 years	Valvular, arteriosclerotic and hypertensive heart disease
c. F. A. Waldron and W. P. Constable—TALIMD, 1950	From 1934 to 1949 maximum period of follow-up 32 years	Coronary thrombosis and occlusion Myocardial infarction
d. G. P. Robb and H. H. Marks—TALIMD, 1953	From 1925 to 1952 maximum period of follow-up 27 years	Valvular, arteriosclerotic and hypertensive heart disease

TASA Transactions, Actuarial Society of America
TSA Transactions, Society of Actuaries
TALIMD Transactions, Association of Life Insurance Medical Directors

TABLE 4

Limitations of Life Insurance Mortality Investigations of Physical Impairments

Studies based on Ordinary life insurance experience

General

1. The mortality findings reflect the experience in a selected sample of persons insured under Ordinary policies who are drawn largely from a particular segment of the general population—predominantly middle class white adult males.
2. These findings have generally been presented in the form of ratios of actual to expected mortality. Such ratios indicate the mortality associated with a specific factor during a particular period of observation *in relation to the corresponding mortality among persons insured under Ordinary policies issued at normal premium rates.* This standard, while highly significant for life insurance underwriting, is not always as meaningful for clinical medicine or public health purposes.
3. These mortality ratios are not death rates among persons but rates at which policies or amounts of insurance terminate by death during the period of exposure to risk.
4. The mortality experience is occasionally affected to a significant degree by strict or lenient underwriting practices.
5. The mortality findings for many classifications are affected by the proportion of female lives, whose normal mortality is basically lower than that of the average of insured lives of both sexes combined.

Physical Impairments

1. The mortality findings for physical impairments are to be interpreted in the light of the fact that the medical examination for life insurance is not very searching and that the applicant is in a position to withhold information. The medical examination consists of:
   (a) The applicant's own statements regarding details of his physical condition, history of illnesses, injuries, and medical treatment received, as well as some miscellaneous matters such as family medical history, supplemented where practicable by inquiry (from attending physicians) about specific items of medical history.
   (b) A report by the medical examiner on the physical examination of the applicant; this examination customarily embraces a check on the important organs of the body, height and weight, a blood pressure reading, and urinalysis.
   (c) Special tests such as an electrocardiogram, X-rays, and blood sugar test are used only on applicants for large amounts of insurance or in other cases where they are clearly of great value.

   Applicants sometimes try to conceal adverse aspects of personal and family medical history.
2. Because of the nature of the medical examination for life insurance and because of the practical limits on the extent to which indefinite statements or vague diagnoses can be followed up, many physical impairment classifications represent relatively undifferentiated conditions (e.g., heart murmurs, history of nervousness). Furthermore the findings have usually been presented for broad categories.
3. Many of the physical impairment classifications do not represent specific diagnoses but merely physical or laboratory findings. Such data and findings do not necessarily reflect any real abnormalities and in some cases may be symptomatic of any one of a number of diseases.
4. Because persons suffering from serious organic diseases or acute illnesses would not usually apply for life insurance and because 3% to 4% of the applicants for Ordinary insurance are rejected, the physical impairment classifications are virtually confined to the less severe and non-acute non-recurrent conditions.
5. The mortality findings for physical impairments relate to the status of the individuals at time of issue of the insurance. The experience, therefore, reflects not only the effect of certain individuals becoming poorer risks in the course of time, but also certain proportions becoming better risks and withdrawing from the experience. Where effects of a physical impairment are deferred, it is important that the investigation cover a sufficiently long period of time for the deferred mortality to become evident.

Factors in Interpreting Mortality after Retirement

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In recent years considerable discussion has been given to the advantages of continuing individuals in employment beyond age 65 rather than having compulsory retirement at that age, as is the case in many retirement plans. Such advantages are said to accrue both to the individual involved and to the nation.

One of the advantages frequently claimed insofar as the individual is concerned is that a person compelled to retire loses his vitality and thus tends to die much earlier than if allowed to continue in gainful employment. This runs contrary to the viewpoint frequently expressed many years ago that workers were being compelled to remain at work because there was no pension plan to take care of them so that their inevitable end was death from exhaustion. Accordingly, it was advocated that instead such workers should be allowed to spend their declining years in peace and leisure while being supported by a pension.

Currently, there are about 15,000 pension plans supplementary to the Old-Age and Survivors Insurance program of the Social Security Act. Many of these, following to some extent previous employer practice, provide for a compulsory retirement age (often at 65). In the majority of plans, retirement may be deferred with the consent of the employer. That retirement at age 65 is by no means universal is indicated by the fact that the average retirement age under the Old-Age and Survivors Insurance program is currently 69 for men and somewhat over 68 for women (in 1940-50 it was generally about one year higher).

This paper will examine the question as to the effect of retirement on mortality. Before proceeding further, let the warning be issued that no clear and definite conclusions will be or can be drawn because there are so many conflicting factors involved.

Unfortunately, specific and reliable data on this subject are not available. The analysis is complicated by the question as to whether people retire because they are disabled and are thus subject to high mortality, or on the other hand whether the high mortality is the result of retirement. Data as to the mortality of retired persons will be examined for several governmental retirement systems and for a few non-governmental pension plans in an effort to throw some light on this matter.

Experience to be Expected in Various Types of Plans

Before proceeding to such actual data as are available, it will be worthwhile to examine briefly the effect that the particular provisions of the plan might have on the resulting experience. This is an extremely important factor because completely different results may be obtained for what is essentially the same underlying mortality—all depending on the structure of the benefits provided and the administrative procedure adopted.

In considering various possible hypothetical pension plans, let it first be assumed that mortality is not affected by retirement. Then we shall be able to see that any indications of lower or higher mortality following retirement arise solely from the particular plan and its provisions.

First, consider a plan which has no benefits payable before age 65—either early age retirements or disability retirements—but which has compulsory retirement at age 65 and which pays an annuity beginning at age 65 to those who previously left service because of disability. Under this plan, mortality after age 65 would, for the entire retired group, be fairly comparable with that previous to age 65, or with what might be termed the "general level." Of course, as between those who were in active service when they attained age 65 and those disabled persons previously separated from service who receive an annuity at age 65, the former would experience lower mortality.

Second, consider what the situation would be if the previous plan did not have compulsory retirement at age 65. For ages shortly after age 65, it is likely that the mortality experience would be higher than the general level because there would be a tendency for the less healthy lives to retire at or shortly after age 65 and for the healthier lives to continue at work. After age 70, the mortality experience of the total retired would approach the general level of mortality because virtually everybody would have retired by then.

Third, consider the case where disability pensions are provided (or where disabled persons receive no vested rights for a pension at age 65). If retirement is compulsory at age 65, the experience for non-disabled retired workers will show definitely lower mortality than the general level at the ages shortly after age 65 but eventually will merge into the general level. If retirement is not compulsory at age 65, the resulting mortality experience will probably be somewhat higher than the general level at the ages just beyond age 65 and not as high as for the group of disabled pensioners.

Fourth, consider the experience under a plan which permits optional retirement before age 65, and which pays disability pensions under a definition or test of disability which is neither strict nor rigidly administered. There is a subdivision between disability pensioners and others (as there well might be because of a differential in benefit amount favoring the former). The disability pensioners will experience quite high mortality, while the other pensioners, at least for a few years, will experience very low mortality. This latter group would undoubtedly obtain the larger disability pensions if possible and therefore must be considered to be quite select medically.

Experience Under Old-Age and Survivors Insurance Program

The Old-Age and Survivors Insurance program covers some 80% of the paid civilian jobs in the country. In its actual operation, a vast amount of valuable mortality experience has been accumulated. Unfortunately, it has not been possible to tabulate and analyze all of this vast store of information, especially in regard to mortality data stratified by duration of retirement.

In the early 1940's a brief investigation was made as to select mortality by age and duration of retirement. This indicated that, as contrasted with general population mortality, a person who has just retired has about 15% higher mortality. But this differential rapidly diminishes until after two or three years it has virtually disappeared.

More recently it has been possible to make an investigation as to the overall mortality experience of retired workers—but only by attained age and not with regard to duration of retirement. This experience is summarized in Table 1. For men there is very notable excess mortality at ages 65 and 66, but this differential gradually decreases for the older ages. This gives some indication of the higher mortality immediately after retirement. The effect thereof is diluted at the older ages as most of the experience is among continued lives rather than newly retired ones. For women the same general tendency appears to be present although to a much smaller degree. The mortality of male retired workers at ages 75 and over very closely parallels population mortality, but for women the retired workers have 10-15% lower mortality at these ages and even at and shortly after age 65 the mortality is very close to that of the general population.

Table I

Ratios of Actual to Expected Deaths Among Retired Workers[a] Under Old-Age and Survivors Insurance System, 1950-52[b]

Age	*Men*	*Women*
65	136%	90%
66	145	107
67	128	99
68	121	98
69	116	94
70	115	90
71	111	90
72	107	87
73	106	85
74	105	85
75–79	99	82
80–84	98	85
85–89	101	90
90 and Over	103	100
All Ages	109	90

[a] Actually, includes all persons who claimed benefits even though some returned to work.

[b] Expected deaths based on U.S. White Lives Mortality Tables.

The O.A.S.I. data clearly indicate that considerably higher mortality than standard arises for individuals who have just retired, but that this differential gradually reduces. This is particularly the case for men, although there is some indication of it also being present for women.

Experience under the Railroad Retirement Program

The Railroad Retirement program covering some 1½ million workers may be said to be a combination of an industry-wide private pension plan and a social insurance system since it contains elements of both. In its actual operation, a very considerable amount of valuable mortality experience has been accumulated. In fact, it is the only large public retirement system for

Table 2
Tabular Male Mortality Rates Used in Railroad Retirement System[a]
(per thousand)

Age	*Active Service*	*Age*	*Retirements*	*Ratio of Active to Retired*
65	30.2		30.2	100%
70	45.4		50.2	91

[a] Source: "Retirement Policies and the Railroad Retirement System," Part 1, Senate Report No. 6, 83rd Congress, 1st Session, pp. 341 and 357.

which good mortality data are available according to duration of retirement.

Table 2 compares the actuarial rates used in cost valuations for mortality of active workers and retired persons for ages 65 and 70. These have been tested against actual experience to a certain extent. According to these figures it is not expected that the mortality of these two groups will differ greatly at those ages where most retirements occur.

Table 3
Ratio of Actual to Expected Deaths Among Railroad Retirement Age Annuitants, by Duration of Retirement, 1947-50[a]

Age at Retirement[b]	*Duration of Retirement*					
	0	*1*	*2*	*3*	*4*	*5 and Over*
65	112%	110%	99%	95%	89%	104%
66	135	118	115	99	105	114
67	123	114	109	116	124	111
68	141	132	110	109	105	115
69	111	110	95	107	97	105
60–64	74	87	75	78	96	101
65–69	121	114	104	101	99	107
70 and Over	103	93	103	101	104	104
All Ages	114	107	102	100	100	106

[a] Based on data furnished by Office of Director of Research, Railroad Retirement Board. Such data in summary form are contained in Table A-2, Annual Report of the Railroad Retirement Board for the Fiscal Year Ended June 30, 1952 (but shown there by attained age rather than age at retirement). Expected deaths based on 1944 Railway Annuitants Mortality Table, set back 1 year in age. Actual deaths: 25,545.

[b] Age last birthday.

Table 3 compares the ratio of actual to expected deaths among retirement age annuitants during a recent 3-year period. The characteristics of this plan are such that individuals may retire before age 65, with larger benefits if permanent and total disability is proved than if the retirement is for "age," and under certain circumstances retirement can take place for "occupational" disability.

The mortality for age retirements at age 60-64 is as much as 25% below the expected level during the early years of retirement although ultimately the mortality of this group approaches very close to that of the life table used as the basis of determining expected deaths. On the other hand, for

those retiring at ages 65-69, actual mortality is appreciably higher than expected mortality—particularly in the first two years of retirement. This could be anticipated because those reaching the age 65 who are in better health tend to continue at work, and conversely those in poorer health retire. Those retiring exactly at age 65, relatively do not show as much excess mortality in the first few years of retirement as those retiring at ages 66-68. For those retiring at ages 70 and over, the mortality experience is quite close to that expected and shows no significant fluctuation with duration of retirement. This might well be expected because age 70 is by employer practice virtually a compulsory age on most railroads. Accordingly this group is a good cross-section of persons of those ages—although perhaps somewhat healthier because they have been in employment up to that age.

Consideration of the Railroad Retirement data, in view of the specific provisions of that program, indicates quite clearly that the mortality of those who retire at and after age 65 is relatively high in the first few years of retirement. There is no conclusive evidence that this higher mortality is due to the act of retiring, but rather it seems probable that the retirements were to some extent caused by ill health which would have produced higher mortality anyhow.

Experience under Civil Service Retirement System

The Civil Service Retirement system covers some 1⅞ million employees of the Federal Government and so is, in effect, a large self-administered pension plan. In general, depending upon length of service, age retirement on full annuity can occur at ages 60 or 62. Prior to then, in certain cases, both disability and age retirement benefits are available, but the latter are in a reduced amount so that any disabled person would attempt to have his retirement adjudicated as due to disability.

Table 4

Tabular Male Mortality Rates Used in Civil Service Retirement System *
(per thousand)

Age	*Active Service*	*Age Retirements*	*Ratio of Active to Retired*
60	14.1	20.8	68%
65	17.6	30.9	57
70	21.5	46.5	46

* Source: Tables 27 and 31, 22nd Annual Report of the Board of the Civil Service Retirement and Disability Fund for the Fiscal Year Ended June 30, 1942.

Table 4 indicates the difference between the actuarial rates used in valuation of the system for the mortality of persons in active service and those who have retired on account of age. These two sets of figures should not be considered as reflecting the actual experience but rather give some indication of what is expected from an actuarial standpoint. For ages 60 to 70, the mortality of persons in active service is indicated to be some 30-50% lower than for persons who have retired on account of age.

Unfortunately, select data according to duration of retirement are not available for this system. Table 5, however, does show the ratio of actual to

Table 5
Ratios of Actual to Expected Deaths Among Civil Service Retirement Non-Disability Annuitants, Fiscal Years 1950-52 *

Age	*Men*	*Women*
Under 60	99%	40%
60	121	94
61	109	65
62	119	84
63	113	79
64	120	61
65	119	79
66	113	69
67	103	79
68	110	83
69	102	66
70–74	94	74
75–79	95	84
80–84	97	100
85–89	92	98
90 and Over	93	106
All Ages	99	81

* Based on data furnished by Retirement Section, U.S. Civil Service Commission. Expected deaths based on tabular rates shown in Table 4. Actual deaths: men—16,307; women—1,561.

expected deaths by attained age for age retirements during a recent 3-year period. For men, the mortality experience under age 60, which is in respect to individuals who voluntarily retired on a reduced annuity and thus apparently could not prove disability, was relatively low, just as was the case in the Railroad Retirement data. For attained ages 60-66, mortality is definitely higher than that according to the standard table, while at the older ages, the two tend to come together. Since this is an aggregate experience for all ages of retirement combined, it would be expected that this would occur at least after age 70, which is the compulsory retirement age. For women, the same general trends are evident except that there are greater fluctuations in the mortality ratios due to the smaller number of persons involved and except that the mortality ratios for ages under 80 tend to show actual mortality well below that expected. This is not a significant factor in the experience as to the effect of retirement, but rather indicates that the standard table in use for women has too high mortality rates.

The experience under the Civil Service Retirement program seems to confirm, in general, that of the Railroad Retirement system. Mortality is definitely lower than standard for those retiring as age retirements prior to the normal age and is definitely higher for those retiring at the normal age and a few years later. Again, this seems to indicate that the higher mortality shortly after retirement at or after the normal age is in considerable part due to the fact that ill health tended to cause retirement rather than vice versa.

Experience Under Private Plans

For many years insurance companies have collected experience under the

group annuity plans which they sell primarily to commercial and industrial concerns. In general, the annuities are payable beginning at age 65 regardless of whether the individual retires at that age, although in actual fact he may not receive the payment. Two subdivisions possible in the group annuity data are for "normal" retirements (generally payable from age 65 on) and "early" retirements, which in many—if not most—cases are disability retirements. As would be anticipated, the mortality under the "early" retirements is very high, especially at ages prior to 65, but subsequently tends to come closer to the mortality for the "normal" retirements (see Table 6). On the other hand, for the "normal" retirements, mortality shortly after age 65 tends to be somewhat low since payments generally begin automatically at age 65 and are thus made to quite healthy lives since a considerable number of disabled lives has already been eliminated as a result of the "early" retirements.

There has recently become available the first results of a continuing study by a committee of the Society of Actuaries in regard to the mortality experience under self-administered retirement plans. As discussed previously, the resulting experience must be considered very carefully in view of the fact that the particular provisions in each plan will materially affect the results.

Table 6 compares the actual and expected deaths among male service pensioners under three privately administered pension plans. It should be noted that the mortality table used as a basis of the expected deaths is

Table 6
Ratio of Actual to Expected Deaths Among Male Service Pensioners in Three Self-Administered Private Pension Plans[a]

Age	*Group Annuity (1946-50)* "Normal"	*Group Annuity (1946-50)* "Early"	*Plan A*[b] *(1943-52)*	*Plan B*[c] *(1946-51)*	*Plan C*[d] *(1946-51)*
Under 55	*	312%	465%		
55–59	152%	248	280		
60–64	96	197	166		
65-69	102	149	116	86%	94%
70–74	112	136	118	107	102
75–79	119	137	123	138	117
80–84	137	113	131	147	120
85–89	124	*	120	117	129
90 and Over	127	*	128	*	110
All Ages	109	174	130	111	105

[a] Source: Report of Special Committee on Experience under Self-Administered Retirement Plans, *Transactions of the Society of Actuaries, 1953 Reports.* Expected deaths based on 1937 Standard Annuity Mortality Table. Actual deaths: Plan A—5,316; Plan B—613; Plan C—1,672.

[b] Group of public utilities covered under uniform plan.

[c] Electric utility company.

[d] Large company in electrical manufacturing industry.

* Insufficient data.

significantly too low at the extreme ages (beyond age 80) so that the mortality ratios developing tend to be artificially high.

Plan A has compulsory retirement at age 65 but has disability pensions prior to that age, which are included in this experience. Accordingly, as would be expected, there are very high mortality ratios prior to age 65, while those after age 65 tend to be somewhat above the group annuity "normal" retirement experience, at least between ages 65 and 75.

Both Plans B and C have compulsory retirement at age 65 and have separate disability benefits before age 65, the experience of which is not included here. As a result for ages 65 to 75, these plans show very low mortality since those entering the experience, upon compulsory retirement at age 65, tend on the whole to be quite healthy lives. Certainly this latter experience would, of itself, not seem to give any indication that compulsory retirement produces high mortality.

Summary

The preceding analyses of the mortality experience under various governmental and private pension programs indicate quite clearly that, in the absence of any special circumstances, the mortality of retired workers during the first year or two of retirement is considerably above the general level which otherwise might be expected but thereafter merges with such general level. It seems likely that this higher mortality in the early years of retirement arises from the fact that those in poorer health are more apt to retire at or shortly after the minimum retirement age, while the healthier individuals continue at work.

An important factor to consider is that those retiring under a plan which does not have a compulsory retirement generally tend to be the less healthy lives. On the other hand, in a plan providing for compulsory retirement at a particular age, those still in service at that age generally tend to be somewhat healthier than the normal population since they have recently been at work. Thus, it would be completely erroneous to contrast the mortality under a plan with compulsory retirement and that under a plan with voluntary retirement if there were considered only pensioners. The results would seem to indicate lower mortality for the compulsory plan, which would not be a valid conclusion. It would really be necessary to contrast the mortality of pensioners under the compulsory retirement plan with that of both active employees and pensioners under the voluntary retirement plan. No such data were available to the author since usually mortality of active employees is not as closely studied as that for retired persons, particularly in governmentally administered plans. But if any progress is to be made in exploration of the subject of mortality after retirement, it will be necessary to obtain such data.

The preceding discussion does not, however, mean that compulsory retirement might not have a serious effect on an individual's health and vitality, especially if he had not adjusted himself to the separation from employment. Unfortunately, currently available data do not measure the effect of retirement on mortality after retirement. A priori reasoning would seem to indicate that compulsory retirement would certainly have some deleterious effect on mortality for some persons.

1954—The Year for Action

HONORABLE ALFRED J. BOHLINGER,
Superintendent of Insurance of the State of New York

It is a real pleasure for me to speak to a group composed of those who teach the subject of insurance in colleges and universities throughout this country. As skilled and professional teachers of a highly technical and professional subject, you, of course, inform your students of the trends in the insurance business and explore with them the pros and cons of the important issues of the day.

There have been a number of such issues throughout the years; some of them have arisen during my association with the New York State Insurance Department.

As examples, I might mention the development and passage of the Commissioners—All-Industry bills throughout the country following the S.E.U.A. case and Public Law 15, and the uniform classifications of expense programs in the property and life insurance fields. In these matters the welfare of the people—the public interest—was the touchstone. However, while the uniform accounting program and the All-Industry laws affect the industry directly, they affect the public only indirectly.

Recently, another issue, which has received attention from time to time during the past quarter of a century, has again become active. This issue has at least one significant difference from the others which I have mentioned in that it affects the public directly. I refer now to the problem of the uninsured motorist.

It is not necessary to belabor you with the mounting toll of death, injuries and property damage occurring on our highways. Since some of these accidents involve uninsured motorists, they must leave in their wake an unnecessary toll of unrecompensed economic losses. Probably all of you have come to one conclusion or another about the best method of solving the problem of the financially irresponsible motorist. I certainly have. Because the subject is timely and involves the public interest, I am sure you will indulge me if I outline to you the basis upon which we in New York reached the conclusion that compulsory automobile liability insurance is the simple, direct, fair and equitable method of solving the problem of the uninsured motorist.

By way of preamble, I should like to point out that members of the Legislature, elected state officials, and appointed state officials, reflect, to a greater or a lesser degree, the problems and grievances which beset their constituents and the people of their state. Over two years ago I became increasingly aware that the public in New York State was restive because a substantial number of motorists were financially irresponsible. Therefore, I requested members of my staff to initiate a study of the uninsured motorist problem. Simultaneously I began my own research and study and have continued it to this day.

In May, 1951, I made my first public statement upon the problem. In an address entitled, "Which Road for the Uninsured Motorist?" I endeavored

to delineate the arguments both for and against compulsory automobile liability insurance and also discussed safety responsibility laws, unsatisfied judgment funds and automobile compensation plans. I concluded that address with the following remarks:

> "I am convinced that the public is interested in seeing that every legitimate claimant is paid for injuries caused by motor vehicles . . . I am sure your studies will convince you, as my initial research as reflected in my remarks today has convinced me, that the problem of the uninsured motorist will confront all of us until we have solved it to the satisfaction of the public."

I still stand on that statement.

In the same speech I also commented on the fact that concern about the uninsured motorist was not confined to New York State or, for that matter, to the United States but was also reflected in legislative action in Europe and other parts of the globe. Later on I shall advert to some of the results of our study of European countries.

Late in 1951, my staff transmitted to me a report* which has become a reference work in the field of compulsory automobile insurance. Since it was prepared at my direction, it may not be appropriate for me to review it. I shall merely quote one of your distinguished members, Professor Ralph H. Blanchard of the Graduate School of Business of Columbia University, who stated in February, 1952, that:

> "Much of the discussion of protection of the victim of automobile accidents is intemperate, inaccurate and irresponsible. It is refreshing to read a report whose authors appear to be animated by a desire to weigh the evidence and reach just conclusions, rather than to support conclusions (or prejudices) already adopted. In writing this report on "The Problem of the Uninsured Motorist" Messrs. Kline and Pearson are judges, not advocates; researchers, not spellbinders.
>
> "It has been suggested in some quarters that the report leans toward compulsory insurance. It seems to me that it is a well balanced exposition, with no conclusion, express or implied, pro or con compulsory insurance. So much has been written and said in opposition, and the feelings of the opponents are so strong, that perhaps anything less than opposition seems to be approval."

It is noteworthy that a committee representing the automobile liability insurance industry, evidently stimulated by the increased interest in the subject of the financially irresponsible motorist, also issued a report relating to New York State in November, 1951. Since the problem was then receiving attention in other states, subsequent industry reports were issued in respect to New Jersey during January, 1952 and Wisconsin in July, 1952.

In brief, the industry report on New York concluded that the strengthening of the safety responsibility law and the affording to motorists of wide medical payments coverage constituted the best approach. The report opposed

* "The Problem of the Uninsured Motorist," a report by Deputy Superintendent George H. Kline and Special Assistant Carl O. Pearson of the New York State Insurance Department, dated November 15, 1951.

compulsory automobile insurance. State operated unsatisfied judgment plans to provide payment of judgments against negligent, financially irresponsible drivers were also opposed. Company operated unsatisfied judgment funds were to be the subject of further study. The New Jersey report opposed even company operated unsatisfied judgment funds. The Wisconsin report also opposed company operated unsatisfied judgment funds. It stated that such plans impose inequitable burdens upon both insurance companies and insured motorists. Despite this announced opposition by the insurance business to unsatisfied judgment funds generally, it actively supported and secured passage of an unsatisfied judgment fund bill in New Jersey during the spring of 1952. After supporting the New Jersey unsatisfied judgment fund bill, the insurance industry, in its Wisconsin report, stated that there was no proof that the New Jersey type plan would work as a practical matter. Parenthetically I might observe that this vacillation on the part of the insurance industry has caused some people to speculate whether the industry is really serious about solving the problem of the financially irresponsible motorist.

Thus we had arrived at a time, in the summer of 1952, when it was obvious that the period of fact finding was over and the time of decision was upon us. What then were the various plans proposed to solve the problem of the financially irresponsible motorist? Briefly they were: (1) compulsory automobile insurance with or without a compensation system based upon a liability without fault doctrine; (2) the continuation of our present safety responsibility legislation supplemented by either an unsatisfied judgment fund or by the so-called "voluntary" approach to be made possible by the purchase of additional forms of coverage. The latter proposal sometimes included a recommendation for the impoundment of the automobile of a financially irresponsible driver following an accident.

It was our determination that no change should be made in our present theory of legal liability. In this we were in complete agreement with all segments of the insurance industry.

We also concluded that the unsatisfied judgment fund principle adopted by New Jersey in 1952 was basically inequitable and unsound and that this approach should be rejected. It is interesting to note that the mutual casualty companies had reached the same conclusion and later took a strong public position against the unsatisfied judgment fund theory. Today, apparently, even the stock casualty companies are in agreement that the unsatisfied judgment fund approach is not the proper solution to the uninsured motorist problem. While the stock companies secured the introduction of a New Jersey type of unsatisfied judgment fund bill in the 1953 session of the New York Legislature, I am now given to understand that they will not sponsor such a measure in the forthcoming legislative session.

The feasibility of strengthening our present safety responsibility law by impoundment or other wise, was carefully considered. It was recognized that further tightening of that law and the enactment of impoundment legislation might reduce the toll of unrecompensed injury by virtue of their nakedly compulsive features. However, it was also clearly realized that such an approach, even if embellished with the offer of wide medical payments coverage, would be merely a palliative and not a lasting cure. Stated simply, such proposals would at best reduce, not eliminate or solve the problem. Thus there remained one simple and direct solution—compulsory automobile insurance. The New York Joint Legislative Committee on Unsatisfied Judgment Fund and Com-

pulsory Insurance, reaching the same conclusion after a long and independent study, in February, 1953, recommended compulsory automobile insurance and outlined a legislative program.

In reviewing with you how we arrived at the decision that compulsory automobile insurance is the logical answer to the uninsured motorist problem, I have used the process of eliminating alternatives. Rest assured that our espousal of compulsory automobile insurance is not based solely on the fact that all other plans suggested to solve the problem are unsound, inequitable, unwieldy or ineffective. For example, we had the experience of other jurisdictions which had enacted compulsory automobile insurance.

In Great Britain the Road Traffic Act of 1930 requires motorists to purchase automobile liability insurance. In brief, the Act applies to practically every user of all types of motor vehicles on public roads. Only third party personal injury coverage is required.

Our research determined that the enforcement of the Act has not been difficult. The number of uninsured vehicles on the roads of Great Britain is negligible and the number of prosecutions for infringements of the Act is insignificant compared with the number of vehicles on the road. To take care of the liability of any uninsured vehicle and all hit and run drivers, the English insurers have formed an association to process such claims as if insurance did in fact exist. Costs incurred by this association are distributed equitably amongst its members.

In Sweden compulsory automobile insurance had its origin in 1929. The Traffic Insurance Law requires that all operators of motor vehicles carry liability insurance with bodily injury limits of 60/300,000 kroner and property damage limits of 10,000 kroner. Norway and Denmark also have compulsory automobile insurance laws and exchange agreements have been negotiated among the three countries under which cars are allowed to move freely back and forth on the assumption that each operator has complied with the law of his own country.

Individuals injured by hit and run drivers or by an uninsured vehicle in Sweden make their claim against the Swedish Traffic Insurance Association, which handles the claim as if insurance existed. Losses so paid are spread among all insurance carriers in proportion to premium income.

Since the compulsory insurance law in Denmark is similar to that of Sweden, I shall content myself with the observation that the Danish law, which preceded the Swedish law by ten years, requires bodily injury and property damage coverage for private passenger cars for a single limit of 60,000 kroner.

Under a Federal law of March, 1932, Switzerland also made automobile liability insurance compulsory. The Swiss law requires limits of 50/100,000 francs for bodily injuries and 5,000 francs for property damage. Insurance coverage follows the license plates in that country. No provision has been made to protect the victims of hit-and-run drivers.

Thus, in at least four European countries of which I have direct knowledge, compulsory automobile insurance has been established for a period going back over 30 years. In every instance it is working satisfactorily.

In addition to the European experience which I have briefly outlined, we had the experience of the Commonwealth of Massachusetts where compulsory automobile insurance became effective in 1927. Since that time, literally bales of material have been written, rewritten and again rewritten, on the vices to

be found both in the theory of that law and in its practical operating results. In an effort to be dispassionate about the Massachusetts experience, I caused a detailed study of the provisions of that law and its administrative workings to be made. At the conclusion of that inquiry, it became fairly obvious, to us at least, that a quarter of a century of experience could teach us lessons in philosophy and draftsmanship if we were astute enough to learn. For example, several things which had been inflated over the years to the status of major obstacles, had to be looked at in perspective. I refer now to such things as the provisions of the Massachusetts law that all policies have a common expiration date; that bodily injuries alone should be covered and property damage excluded; and that coverage should be limited to the public highways of the Commonwealth of Massachusetts, thereby excluding off the public way coverage and extra territorial insurance.

It occurred to us after study that many of the objections to compulsory insurance generally had applicability only to the Massachusetts law and were capable of being resolved by draftsmanship. Therefore, in our thinking we proceeded on the assumption that the only arguments against compulsory insurance which must be weighed were those common to any compulsory insurance proposal. In this way we did not become unduly involved in some of the repetitious, redundant and immaterial arguments which have so often been used against compulsory insurance.

The introduction, in 1953, of compulsory automobile legislation in New York began the struggle which will be resumed during the 1954 session of the New York Legislature. One benefit has evolved, however, through the months of debate—the issues have been narrowed. The sham objections have been disposed of and the Massachusetts law is no longer being argued. Unsatisfied judgment funds have been repudiated by those who brought them into being. No serious defects have been found in the compulsory insurance bill which was introduced last year in New York. This being true—what objections remain?

Opponents of compulsory automobile legislation rest their case on three general objections. First, they are apprehensive that a State Fund will stem from the enactment of a compulsory law. They harbor this fear despite the fact that no State Fund has been established in Massachusetts although motorists in that State have purchased coverage under a compulsory law for more than a quarter of a century. Not only has no State Fund been created in Massachusetts, to my knowledge none has ever been seriously considered. The companies operating in that State have been able to take care of the buyers' needs and I have no doubts that those licensed in New York will do as commendable a job. So, too, we have not seen the emergence of a State Fund for compulsory automobile insurance in England, Norway, Sweden, Denmark, or Switzerland. So long as insurers provide motorists with the necessary coverages, they need have no fear of a State Fund. At present insurers are providing liability coverage for more than 3,000,000 New York motorists and I am unable to understand why the addition of a few hundred thousand new insureds to their rolls is going to change the picture so radically. I would suggest to opponents of compulsory legislation that it might be better to discard this argument lest it become regarded as a necessary part of a compulsory program.

The next objection is twofold: in one breath it is argued that compulsory automobile insurance will lead to higher insurance rates and in the next breath

it is argued that compulsory automobile insurance will lead to inadequate rates. Let us consider these arguments separately.

As to the contention about higher rates, all of you know that automobile insurance premiums are based on the driving records of motorists in each particular territory. It is the opinion of leading underwriters that the accident record of motorists presently uninsured is the same as that for insured motorists. This being true, how can the passage of compulsory legislation result in higher rates?

The argument about inadequate rates is bottomed on the contention that compulsory automobile insurance leads to politics in the rate-making process. This argument fails to consider a number of points. First, despite the fact that the New York Department has, during the post war years, reviewed numerous and substantial rate increases, politics have never entered into any considerations of rate revisions proposed during my administration or that of my predecessor. Secondly, the rating law sets up standards for rate approval by the Superintendent which require that rates be neither excessive, inadequate, unfairly discriminatory nor otherwise unreasonable. In addition, the law contains safeguards such as the requirement that the Superintendent in rate approval give due regard to the past and prospective loss and expense experience of insurers and to provide for them a reasonable profit. In any event, the decision of the Superintendent is subject to judicial review. The compulsory automobile bill proposed at the last session of the Legislature did not change this system.

I should like to remind representatives of the industry that the responsibility for keeping politics out of ratemaking rests as surely with them as with the Superintendent of Insurance. In my opinion ratemaking in New York State will continue to be free of political pressures so long as the public has confidence in those who are responsible for the making and approval of rates.

Finally, there are a few opponents of compulsory automobile insurance who contend that it will somehow result in the elimination of competition in respect to policy forms and rates. This argument too has no merit. The compulsory automobile insurance bill which our Department supported at the 1953 session reiterated the legislative intent contained in the rating section of our Insurance Law to the effect that nothing therein was intended (1) to prohibit or discourage competition or (2) to prohibit or encourage uniformity in insurance rates, rating systems, rating plans or practices. Further the proposed compulsory bill required the Superintendent to promulgate "minimum" provisions for a liability insurance policy and expressly provided that nothing "* * * * shall prohibit any insurer from affording coverage * * * * more liberal than that required by said minimum provisions."

In retrospect, since 1950, there have been three distinct phases in the development of the New York State administration's program to solve the problem of the financially irresponsible motorist.

The first and second of these—fact finding and decision, the highlights of which I have reviewed with you, are behind us. The third phase—the enactment of a sound compulsory automobile insurance program—lies ahead.

I have received no official notice of what, if anything, the insurance business is going to offer the 1954 Legislature as its solution to the problem of the uninsured motorist. Our Department is, as it always has been, ready and willing to discuss and evaluate any solution proposed to rid the road of

the financially irresponsible motorist. The failure of the insurance industry to come forward with any satisfactory alternative to compulsory automobile insurance which would do the job is in itself conclusive evidence that compulsory automobile insurance is the only solution for the problem of the financially irresponsible motorist. Compulsory automobile insurance is inevitable. Why not enact it now? 1954 is the year for action.

Part II. Review of the Year

Life Insurance

By

ALFRED N. GUERTIN, Actuary
American Life Convention

The year 1953 again showed great gains in all phases of our business. The advent of a new administration at the beginning of the year, growing confidence that inflationary pressures would ease, the evidence of a desire to let interest rates seek their own levels, followed by a rapid decline in such rates as pressures reasserted themselves, the growing fear in the later months of the year that the high level of business activity of 1953 would not be maintained, generated largely as a result of the Korean truce, as well as evidences of further demands in the field of social legislation were phenomena of 1953, a year of return to orderly processes—a year of quiet expectation.

Life Insurance Growth

Almost without notice and certainly without fanfare, life insurance in force passed the $300 billion mark during 1953. Possibly, this absence is due to our growing familiarity with large figures; possibly, it is because our emphasis on size is changing. Nevertheless, this stupendous achievement caused very little flurry in the daily press. More important than such a milestone is the extent to which the American people have put their trust in this great institution. This I propose to examine in more detail later in this article in the light of growth of other financial institutions.

The persistency of our acceptance as a savings medium is indicated by the amount of new business which companies have written in recent years. Figures published by the Life Insurance Association of America each year show this graphically. These figures are consistent with those published by the Life Insurance Agency Management Association. In the table which follows, these are given for three years and in millions. They exclude revivals, increases, dividend additions and reinsurance acquired.

Life Insurance Sales in the United States

	1951	*1952*	*1953*
Ordinary	$19,062	$21,788	$24,900
Industrial	5,461	5,987	6,400
Group and wholesale	4,927	6,664	8,400
Total	$29,450	$34,439	$39,700

In my review last year, I pointed out the ground lost in the group insurance field in 1951 on account of the wage and salary stabilization program. The sales of group insurance in 1952 resumed the levels of 1949 and 1950, while 1953 soared to new heights.

Similar estimates are made by the Life Insurance Association each year with respect to life insurance in force. The estimates quoted in my review for

1952 have been replaced by the actual figures and estimates for 1953 are given in the following table. Again, figures are given in millions and reinsurance ceded has been deducted.

Life Insurance in Force in the Continental United States

	1951	*1952*	*1953*
Ordinary	$160,210	$172,298	$186,600
Industrial	34,833	36,448	38,100
Group and wholesale	58,057	67,845	79,700
Total	$253,100	$276,591	$304,400

Reference has already been made to the passing of the $300 billion mark. It took only five years to attain the third hundred billion as against ninety years for the first and twelve years for the second. With writings at the level of nearly $40 billions yearly, and increasing year by year, it may not be too many decades before we will look upon an increase of $100 billions per year as normal.

It has been estimated that there are now about 90 million holders of life insurance policies, an increase of some 2% over the previous year. Since the increase in insurance in force was 8%, it must be seen that individual protection of existing policyholders was increased substantially during the year. It is this phase of our growth that I think is of greatest importance because it illustrates the increasing acceptability of our services to our existing policyholders, as well as an increasing recognition of the need for the protection which our business provides.

There are a few measuring rods which I have selected as bases for appraisal of significant trends. The data given in the following table will indicate trends in the growth of life insurance relative to other institutional media of savings. These are not the only comparisons of this kind that can be made, but those selected are the ones that would seem to be nearest to us in general purposes. All figures are in billions.

	1951	*1952*	*1953*	*Increase 1953 over 1952*
Life insurance assets	$31,731	$73,375	$78,600	7%
Savings and time deposits	26,479	63,598	67,300	6%
Savings and Loan Assoc. assets	6,049	22,700	26,600	13%
Series A, E and H Savings Bonds	4,750	35,324	36,600	4%

While the business maintained its position relative to savings deposits, it should be noted that it failed to do so relative to savings and loan assets. If savings banks deposits and time deposits in commercial banks and savings and loan associations assets are aggregated, we find that the growth of life insurance assets of 140% over twelve years compares unfavorably with the 179% growth in such aggregates. Traditionally, we fall behind these other media in times of inflation. On the other hand, we tend to occupy a more favorable position in times of deflation.

Investments

The record of life insurance investments during the year 1953 was presented in December, 1953, by Dr. James J. O'Leary before the Life Insurance Association of America. This paper was a continuation of a series which

develops, year by year, statistical material of considerable interest in the investment field. A table derived from the figures given by him will show the shift by classes of assets held by all United States legal reserve life insurance companies. The figures are in millions and the 1953 figure is an estimate.

	1950	*1951*	*1952*	*1953*
U.S. Government bonds	$13,450	$11,009	$10,252	$ 9,800
Other government bonds	2,606	2,658	2,522	2,525
Railroad	3,187	3,307	3,545	3,650
Public Utility bonds	10,587	11,235	11,953	12,900
Industrial and misc. bonds	9,526	11,441	13,702	15,725
Stocks	2,103	2,222	2,446	2,600
Farm mortgages	1,327	1,525	1,704	1,875
City mortgages	14,775	17,788	19,547	21,425
Real estate	1,445	1,619	1,903	2,025
Policy loans, etc.	2,413	2,590	2,713	2,900
Cash	1,005	1,112	1,146	1,125
Other assets	1,586	1,771	1,941	2,050
Total	$64,020	$68,278	$73,375	$78,600

In the Review for 1952, it was noted that the major growth is in industrial bonds and in city mortgages. This trend continued in 1953. In 1950, these classes constituted 14.9% and 23.1% of assets, respectively. In 1953, the corresponding percentages were 20.0% and 27.3%. While no detailed figures are reported, the increase in acquisitions of mortgages was almost entirely in the conventional type, there being no important increase in acquisitions of F.H.A. and V.A. loans. The reason for this is apparent in the greater flexibility in the interest rates on conventional loans, particularly during a year in which interest rates on all investments fluctuated so widely.

As the year drew toward a close, it had become clearly evident that something in the way of a program would be proposed by the Administration in the field of housing and mortgage lending. The business itself had made representations, the rate of interest and terms of mortgages eligible for guarantee required review, the fate of F.N.M.A. was being debated and the inflationary aspects of the governmental programs in the light of economic trends would require study. As this review is being written, the message of the President to the Congress on this subject has just been given. The legislative proposals to follow will be carefully reviewed by all types of lending institutions.

During the year direct placement continued to be a major method of acquisition of securities. However, no important regulatory legislation was enacted in this area at either the state or national level. For the time being the periodical flurries of excitement caused by the size of direct placement operations seem to have subsided.

Valuation of securities continues to occupy the attention of both the business and the supervisory authorities. It will be recalled that in December, 1951, the National Association of Insurance Commissioners adopted a formula for the maintenance of a Mandatory Security Valuation Reserve. The business has taken the position that these arbitrary reserves would prove of little value unless accompanied by a system of valuation which would provide greater stabilization of values of securities on the asset side of the balance sheet.

This stabilization has been achieved partially. In June, the National Association of Insurance Commissioners approved a set of proposals for the valuation of bonds, which had been worked out as a result of many meetings between representatives of that organization and the companies. The new standards for determining amortizability now reach bonds upon which there are no existing market quotations and, hence, encompass almost the whole field of direct placements. Further, the new rules recognize the Mandatory Security Valuation Reserve as a distinct part of the valuation formula and thus permit amortization of many bonds not previously subject thereto.

During the year, technical changes were made in the Mandatory Security Reserve formula, but more important, the National Association of Insurance Commissioners has turned its attention to the problem of a stabilized method of preferred and common stock valuation. The business has appointed committees for the purpose of assisting in finding a solution in this area. There is optimism that before many years have passed, a complete integrated plan of valuation will be in effect.

A feature of the investment markets was the attempt early in the year to permit interest rates to find their own levels as dictated by the market. This was accomplished by the marketing of a long term 3¼% Treasury bond. Strengthened interest rates saw it sell as low as 99. The market strengthened substantially toward the end of the year as fear of deflationary tendencies began to take hold in various circles. On long term Treasury 2½'s, there was seen a swing in yield from 2.75% in December, 1952, to 3.09% in May and June and back to 2.79% in December, 1953. In the meantime, new Treasury 3¼'s followed a similar course and sold at 2.96% yield in December, 1953. The yield on corporates, of course, followed the same pattern.

One result of this was to put companies, at least to the extent of available funds, in a position to obtain good bonds at a relatively high yield. Increase in mortgage portfolios at a rate faster than the rate of growth of assets contributed to an increase in the yield on company portfolios. It is not yet possible to quote the actual yield on investments during 1953, since individual company annual statements are not yet available. In the table below, the yield for a number of years, ending with 1953, is shown. The 1953 figure is an estimate made by the Institute of Life Insurance.

Year	*Before Tax*	*After Tax*
1947	2.88%	2.88%
1948	2.96	2.96
1949	3.06	2.98
1950	3.13	3.00
1951	3.18	2.98
1952	3.28	3.07
1953*	3.35	3.13

* Estimate by Institute of Life Insurance.

Of interest to the business of life insurance are the investment research activities conducted by Dr. James J. O'Leary of the Life Insurance Association of America. A number of research reports on various subjects were distributed during the year. In addition, cooperation continues with research programs of the National Bureau of Economic Research. These include "Saving and the American Capital Market" by Raymond W. Goldsmith, "Capital Requirements in the American Economy" under the direction of Dr. Simon

Kuznets, a study of formula plans for investing in common stocks by C. S. Cottle and W. T. Whitman of Emory University, as well as a study of earnings and capital values to be conducted by the same authors. In these, as well as other studies now completed, a body of basic information in the investment field is being built up which is bound to result in investment activities closely geared to developing trends in our economy.

Federal Income Taxation of Life Insurance Companies

Since my review last year, Congress enacted the Technical Changes Act of 1953, which contained an extension of the so-called 6½% life insurance company tax formula for another year, pending completion of studies being made by the Treasury Department and by the Joint Committee on Internal Revenue Taxation of the Congress. The business, accordingly, is looking forward to further legislation in 1954.

Each year in my Annual Report to the American Life Convention, I have traced the course of certain factors which influence tax impact, and have done so on several different bases. These are useful to students of the business as well as those directly concerned. The table of factors given in my review last year is extended for one more year and is given below.

Year	*Secretary's Ratio 1942 Law*	*Rate of Int. on Assets**	*Int. Req. to Maintain Res.***
1947	100.66%	2.88%	3.000%
1948	102.43	2.96	2.966
1949	100.99	3.06	2.947
1950	96.87	3.09	2.923
1951	94.06	3.18	2.896
1952	91.93	3.28	2.880
1953	88.07	—	—

* Before Federal Income Tax—Annual Statement basis.

** Includes insurance, annuities, disability, accidental death benefits, noncancellable A & H; excludes supplementary contracts, dividend accumulations and cancellable A & H.

From data derived from tax returns furnished to the A.L.C. and L.I.A.A., as well as from the data previously given to determine aggregate taxes paid over a series of years, and assuming a continuation of trends in certain factors, it is possible to make forecasts as to the expected tax results based on the business of 1953. These forecasts are based on an expected increase in assets of 7.2% and an increase of 9 basis points in the net rate of interest earned in the year 1953.

(000,000's omitted)

Year	*Net Income*	*Normal Tax Net Income*	*Total Amount of Tax 1942 Law*	*1951 Law*
1950	$1,789	$1,710	$ 27	$ 86**
1951	1,950	1,863	65	125
1952	2,170	2,077	95	142
1953	2,385*	2,284*	152	158*

* Estimated

** Adjusted to 5½% tax rate to recognize change in corporate rate from 38% to 52%.

On the basis of estimates involving assumptions of continuing trends, it has become evident that if no legislation is enacted in 1954, the 1942 tax law which will become effective automatically, will require the payment of heavier taxes by the companies than the 6½% formula. The 1942 tax law is the same one that in 1947 developed a no-tax position for the companies. There is tremendous leverage in the 1942 law. The leverage on the up side at this time is just as severe as the leverage on the down side that left the business without taxes under that formula in 1947, 1948 and 1949.

I would be remiss if, at this time, I did not repeat the figures that I quoted before the American Life Convention relative to the tremendous tax load borne by our companies in all jurisdictions. State taxes on 1953 premiums probably amounted to $163 millions, other state imposts can well have exceeded $21 millions. With social security taxes, federal and state, estimated at another $27 millions, our companies have incurred estimated tax obligations, as a result of 1953 operations, including $158 millions for Federal income taxes, aggregating the unprecedented total of $369 millions. This is a charge of nearly 3.5% of premium income, a heavy load to be placed on the amounts set aside in 1953 as savings by the frugal and thrifty of the nation.

Taxation of Policyholders

It has always been the aim of the life insurance companies to look upon taxation of policyholders and beneficiaries with respect to their life insurance and the proceeds therefrom as being as important as taxation of the companies themselves. Of particular concern in this field have been Federal income and estate taxes. At the same time, consideration of these burdens cannot be divorced entirely from the taxation of the companies nor the impact of state taxes upon each of them.

With the advent of a new administration in 1953, it became evident that something would be done, not only with tax rates, but also in the field of tax revision. For several years the company associations had been giving consideration to what appeared to be inequities in certain tax areas. Early in 1953, the business filed a memorandum with the Joint Committee on Internal Revenue Taxation of the Congress setting forth various legislative proposals. These with some amendments and additions were later filed with the Ways and Means Committee. A number of the fields covered were also included in the program of the advisory committee of businessmen appointed by Chairman Reed of the Ways and Means Committee to study and make recommendations in the field of pension, profit-sharing and other employee benefit plans.

These proposals included (1) the suggestion for a new method of taxation of annuities on what has come to be known as the life expectancy basis or the Canadian basis, (2) elimination of the premium payment test in determining estate taxes where life insurance policies are involved, (3) elimination of certain inequities in connection with the transfer of policies for a valuable consideration, and (4) elimination of certain inequities in the application of the doctrine of constructive receipt in connection with certain types of policy transactions.

Among the proposals made by the business which were applicable to employee benefits were (1) the granting of capital gains treatment in connection with payments under qualified pension plans, (2) removal of discrimination in income tax treatment in favor of uninsured as against insured pension plans, (3) clarifying statute to permit purchase of life insurance policies by profit-

sharing trusts without tax penalty, (4) permit investment in group annuities in connection with profit-sharing plans, (5) removal of certain discriminations in valuing annuities for estate and gift taxation.

It should be noted that none of these proposals affect the tax bills of the companies. They do affect the tax bills of policyholders and beneficiaries. Of importance to the companies, however, is the reaction of their markets to the impact of taxes. In the field of employee benefits particularly, where the companies are in direct competition with self-insurance and trusteed plans, the subjects are of special importance and could well spell out the difference between a narrowing and broadening field for the use of the insurance mechanism in pension and other employee benefit planning.

Retirement Security and Taxation

In last year's review, reference was made to the Reed-Keogh bills introduced in 1952 and supported by many organizations of professional men. As therein indicated, the life insurance business had made known its views on these bills to Congress. In 1953, similar legislation, the Senate version being introduced by Senator Jenkins by request, took the name Jenkins-Keogh bills and were designed for the same purposes. The purport of the bills is to permit individuals to set aside annually up to 10% of income, not in excess of $7,500, so as to accumulate a retirement fund and, when so set aside, taxation thereon is deferred until retirement. The 1953 version of the bill still excludes the usual forms of policies and annuities as a savings medium. Solution of this problem has other aspects. Not only is it a tax question, but in the minds of many persons it has to be considered in the light of changes in the levels and coverage under the old age and survivors insurance program.

Social Security

It is appropriate to record briefly what has been done by the life insurance companies this year in the field of Social Security.

As 1953 was a year of preparation by the Administration in the field of Social Security, so was it a year of preparation in the life insurance business. Recognizing that the life insurance business has definite responsibilities in this field, not only as an American institution but also as the one having the heaviest stake in the development of benefits provided by government, it seemed necessary that the business determine where it stands on broad issues, the feasibility of various programs and its own collective attitude relative to specific proposals.

During 1953, the Joint Social Security Committee of the A.L.C. and L.I.A.A., with the help of four study subcommittees, did succeed in formulating a report—a report which was approved by the governing bodies of both organizations—one which can be regarded as a statement of position for the life insurance business as a whole and on the basis of which it will be possible for the life insurance business to use in 1954 as a guide in discussing problems in this area with public bodies. In the light of differing views within our business on many matters, this can be regarded as a very substantial achievement.

Supervisory Matters

The Life Insurance Committee of the National Association of Insurance Commissioners has had a number of items on its agenda during the year. It

may be instructive to review their nature and the disposition made of them.

For some time the Committee has had on its agenda the question of the supervision and regulation of non-insured pension funds. The life insurance business has neither urged nor has it opposed regulation in this field. The New York Insurance Department, at both meetings of the Association this year, reported that studies which it was making in this field have not been completed and the Committee has on each occasion put over the subject pending receipt of the report. Closely allied philosophically are the studies being made in the field of union welfare funds, insured and non-insured, being made by the Department, as well as Congressional committee inquiries in this area.

Credit insurance has continued to occupy the attention of supervisory authorities. A statement of recommended rules and regulations to govern the sale of credit life and credit accident and health insurance, formulated by a subcommittee of the Life Insurance Committee, was accepted at the December, 1954, meeting by that Committee but was deleted by the full Association from the Life Committee's Report at that meeting. Several major questions of basic policy are involved, such as the role of the lender in the sale of individual policies, the extent to which rates and commissions should be subject to any kind of regulatory process, as well as the suggestion that specific borrower charges for insurance are not necessarily a method of approach that the Commissioners should approve. This rapidly growing branch of the business seems to be demanding more and more attention, and the work of the Consumer Credit Insurance Association, organized to assist companies in this field, becomes more and more important.

For several years, a subcommittee of the Laws and Legislation Committee of the National Association of Insurance Commissioners has been working on a model Uniform Qualification and Licensing Law for agents. There has been some doubt in many quarters that this was practical of accomplishment. The wide differences in methods of sale, differences in the methods of training, as well as fundamental differences in coverages seemed to make the possibility of uniformity difficult if not impossible. The subcommittee labored long and arduously but at the December, 1953 meeting of the Committee, the subcommittee report was tabled and it is freely predicted that there the report will remain while the agents' organizations in the various lines of business pursue their approaches to licensing and qualification legislation in states where their respective programs appear to be desirable.

The N.A.I.C. continues as always to consider items of direct and indirect interest to the life insurance business. Among them are the perennial question of unauthorized insurance and mail solicitation of business, reporting and allocation of income and expenses with reference to which a subcommittee has been appointed and which is elsewhere discussed in this Review, appearances before the Senate Committee on Judiciary, of which Senator Langer is Chairman, relative to accident and health insurance. There is never an absence of subjects for study by this organization, and the efficacy of its work is lasting.

Group Insurance

No review of the year would be complete without special reference to the broad subject of group insurance. This vigorous branch of the life insurance business, spurred on by current interest in employee retirement and health plans, has many phases which have brought legislation in many areas, discussion among companies, agents and commissioners, and the provoking of in-

vestigations at both the state and Federal levels. These things are more spectacular than important. The great body of group insurance continues to be written on the accepted type of employer-employee groups in an unspectacular way but effectively providing important protection.

During 1952, the California Insurance Department and, in 1953, the Pennsylvania and New York Departments interested themselves in the problem of compensation to agents and others for special services in connection with multiple employer, trade union and association group cases. Hearings were held in all three departments as to practices, and later newspaper publicity with reference to particular cases cited figures intended to indicate excessive commission and administrative payments. The New York Department by questionnaire sought extensive information from companies and is seeking information elsewhere.

Meanwhile, two committees of the House, the Committee on Government Operations and the Committee on Education and Labor both interested themselves in the problems of such racketeering as might have been involved in any cases involving labor unions. Investigators were put to work in certain companies and in seeking information in other areas. Hearings were held in Kansas City and Detroit with respect to particular contracts. Others were contemplated and early in 1954 bills were introduced in Congress by Representative Clare Hoffman designed to eliminate such abuses as might be present in this field.

While the amount of group insurance involved in these inquiries may be relatively small, it cannot be assumed that these inquiries will not continue. The great preponderance of life insurance companies conducting their group business according to the traditional ways will certainly welcome the clearing up of any existing evil. There is some fear, however, that legislation at the Federal level would be a first step toward Federal regulation in broader fields and, hence, misgivings in this area are understandable.

The work of the N.A.I.C. in the field of group insurance is of significance at this time. At its December, 1953 meeting, the Association approved the so-called $20,000—$40,000 limit and thus may be spurring on this program to further enactment. At the same time, it also modified its model group life bill by recognizing the universal statutory term of 31 days during which a terminating employee may effect conversion. A number of other amendments were considered during the year but decision is awaited relative thereto. These include reduction of the minimum number of lives from 25 to 10, the approval of a method for continuance of group insurance during work stoppages as well as certain technical changes. These are receiving the study of company and agency groups as well as that of the Commissioners.

Elsewhere, reference is made to proposals for modification of the N.A.I.C. model group life bill with respect to limits and technical points. Its enactment will be sought in additional states by many elements in the business. Coverage of dependents continues to come up for consideration notwithstanding the position of the agents' organizations against it. These as well as other problems mentioned serve to keep the subject of group insurance alive wherever insurance men gather.

Uniform Reporting

A law enacted in New York in 1953, provides that the Superintendent of Insurance may make rules and regulations for the classification of items of

income and expenses and to present standards for their allocation by lines of business. There is provision for reasonable notice and hearing. A company may use other methods if the Superintendent approves in advance. It is expected that the Superintendent's authority will be used in a reasonable way and that the business of most companies doing business in New York will remain undisturbed, particularly since most multiple line companies make every effort through detailed statistical and actuarial studies, as well as cost accounting methods, to allocate costs and other items on an equitable basis.

With or without specific legislation in this area, the Commissioners of Insurance in the various states do have very broad powers in the area of reporting and examination. Among the more general powers is that of inquiry on any matter of operation or condition. It is the legal duty of the company to supply information, under oath if need be, upon inquiries made under the statute. The Commissioner has almost unlimited powers of visitation and examination, and company records must be made available to him. He must require the filing of an annual statement and the statement shall be in the form prepared by him and shall contain such matters as he shall require. This complete control over the form of statement may be sufficient to permit considerable control of accounting practices.

In addition to these things, many states require that all participating policies shall contain a provision that the company "will determine and account for the portion of the divisible surplus accruing upon the policy" and shall declare dividends therefrom. Flowing from this, through the obligation of the supervisor to see that contract obligations are fulfilled, we have a situation in which the supervisor may have a duty to see that methods appropriate to the company's operations are used and that they reflect experience to a reasonable degree. He is in a position to see that he is supplied with the technical materials, usually involving primarily questions of classification and allocation, to carry out these responsibilities.

The New York Department has been making extensive studies leading to the implementation of this statute. It has issued several questionnaires regarding methods of classification and allocation of expenses used by the companies, it has published a voluminous report showing how different expense items are classified by the various companies. In addition, it also has sent several teams of examiners to visit companies in various parts of the country and to study methods of allocation used by them, including companies not doing business in New York. Out of all this, one conclusion is bound to be reached. There is great diversity in the way in which some accounting items are reported in annual statements. That such diversity is an evil, however, or is even significant, is debatable.

For an even hundred years, classification of expenses was prescribed only by use of appropriate captions to each line in the annual statement. At the beginning, these were few. Just prior to the adoption of the new form of statement in 1951, these had grown to be so numerous that the form became quite confusing. Accordingly, in recommending a new form, the number of classifications in the financial pages was drastically reduced, and more schedules and exhibits were introduced. At the same time, a series of instructions was prepared. These have undergone some revision already and it is to be expected that further revision will be made from time to time in the same way as specific items are added, eliminated or amended from time to time. And, in

line with trends in supervisory processes generally, it is not unlikely that alterations will tend in the direction of more details and specifics.

Whether more control in the field of annual statement reporting is necessary or desirable is a debatable question. The case for more control was stated by Superintendent Bohlinger of New York in connection with the legislative proposals in that state. His reasons may be summarized as follows. There is a lack of suitable comparative information on operating expenses of life insurance companies necessary to measure the efficiency of companies. There was no statutory authority to implement the New York requirement that no insurer shall issue any life insurance or annuity contract or contract of group accident, group health or group accident or health insurance which shall not appear to be self-supporting upon reasonable assumptions. In making a third point, he stated: "It has been found time and again that companies have loaded the expenses of one branch or another to suit the convenience of the company, either for competitive purposes or for purposes of simulating compliance with the expense limitations of Section 213."

While the Superintendent of Insurance of New York made the point discussed above in his 1952 report to the Legislature, he qualified it in substantial degree in his 1953 report, stating that there was some misunderstanding and unnecessary apprehension. He stated that it was never intended that a yardstick for ranking efficiency would be established but that such uniformity was necessary so that management as well as supervisory officials would be in possession of suitable and realistic information in order to make a proper appraisal of the results of operation in the various lines of business.

It is the conviction of many that departmental examination procedure is the proper mechanism for such control as is necessary in this area. Some companies, in fact most companies, are very careful in handling the allocation of items to various lines of business. Many have elaborate systems and large departments devoted to expense analysis and allocation is a part of the larger problems studied. The methods of companies differ. They should. An honest allocation involves judgment. It is not a simple task even in a single company to allocate executive salaries, or even such an item as branch office rent, etc. It would seem to be an impossible task for a single agency to do so equitably for all companies under a specific rule. While it is contended that it is not now the intent to do other than to establish general instructions or principles, the tendency as time goes on is feared by many to be in the direction of specifics.

Solicitation of Insurance on Military Bases

Solicitation of insurance on military reservations has been a difficult problem for a good many years. It should be recalled that state government authority does not extend to these areas except in such a limited way as might have been provided for in the arrangements under which the Federal government acquired title. In a great many, if not most, cases the authority of the State Insurance Departments cannot be used to supervise insurance activities in these areas. Whether a reservation is located within five miles of New York or Chicago, where State authority has been relinquished, or whether it is in Japan or North Africa, the result is the same. The safeguards provided by State law, other than that of the State of incorporation of the insurance company, are absent.

This has left the problem of supervision of the activities of agents upon military reservations largely up to the Defense Department and often, to a large extent, in the hands of the local commander. The problem is not a new one. It was present all through World War II, continued thereafter through the Korean incident and is still a matter that is not completely solved. During these years, the N.A.I.C. has worked with the Defense Department through committees as have individual commissioners. Company people as well have sought to assist in bringing about a reasonable solution.

The problem has been pointed up in recent years by the organization of a number of companies specializing in this coverage. These companies solicited insurance not only within the country but their agents followed the armed forces overseas. Policies issued by these companies were ordinarily without war clauses and are designed for premium collection through the allotment system. New forms have been devised, some of them with varying death benefits, some based on the deferred annuity principle, in addition to the conventional forms of coverage.

After a series of instructions and rules issued over the years, and following conferences with committees of the N.A.I.C., whose program of recognition of state authority in reserved areas did not meet with approval, on May 27, 1953, the Defense Department issued a directive to the Army, Navy and Air Force setting forth a policy of certain minimum requirements for the regulation of solicitation of commercial life insurance on military reservations. These have been summarized by Mr. Robert A. Crichton, Counsel of the American Life Convention, as follows:

1. An agent should be privileged to solicit insurance on a military installation, providing that he is licensed in any one of the forty-eight states or the District of Columbia and represents a company licensed in any of the forty-eight states or the District of Columbia. Significantly, the requirement did not stipulate that the agent had to be licensed in the state in which the military installation, upon which he was soliciting insurance, was located.

2. No life insurance policies could be offered to military service personnel on military installations, unless such policies had reserves at least equal to those produced by the Commissioners' Reserve Valuation Method, as defined in the Standard Valuation Law when calculated according to the Commissioners' 1941 Standard Ordinary Mortality Table with interest at rates not in excess of 3½%. Further, such policies must provide cash and nonforfeiture values at least equal to the minimum values required by the Standard Nonforfeiture Law as approved by the National Association of Insurance Commissioners at its December, 1942, meeting and, further they must comply with the interpretations of the Working Committee on Standard Nonforfeiture Valuation Laws of the Life Insurance Committee of the National Association of Insurance Commissioners, commonly known as the Hooker committee.

3. The existence of exclusion or restrictive clauses must be called plainly to the attention of the policyholder.

4. Life insurance agents must leave with the applicant and the unit insurance officer, information regarding the policy for which application had been made. Included with an enumerative list of the type of information was the requirement for information as to death benefit, guaranteed cash value, extended insurance, pure endowment (if any) at the end of the first to fifth years, inclusive, and the tenth, fifteenth, and twentieth years.

5. Commanding officers would require all companies doing business on military posts to submit a notarized letter, listing all policies to be offered on such military installations and a statement that such policies comply with the reserve requirement set forth in the directive.

It was understood that this directive would be implemented by specific regulations issued by the Army, Navy and Air Force. In addition, individual commanders still retain jurisdiction to further limit activities on their respective posts.

In practice, it has become difficult for a company to follow the day to day changes in regulations. Further, new companies in the business are likely to have even less facilities than do the long established ones for keeping abreast of requirements and in conforming to them. This led to the formation during 1953 of the Insurance Standards Convention, formed of companies specializing in business on military reservations and apparently designed to standardize practices in accordance with the directive described. It is still too early to determine the effectiveness of this organization in solving difficulties that appear to have arisen in various areas.

Meanwhile, long established companies which do a general business throughout the United States, continue to offer through their trained agents working among the military, coverages similar to those issued to the civilian population. These are set up in various forms to meet the needs of the individual, be he in service or a civilian, as they vary from time to time and are designed to offer adequate current and future protection.

State Legislation

The most complete review of state legislation in our business is that contained in the Review of Legislation and Litigation presented each year before the Legal Section of the American Life Convention by Ralph H. Kastner, General Counsel of the Convention. Covering the same field, but in a much different way, is the Report on Association's 1953 Legislative and Legal Activities presented to the membership of the Life Insurance Association of America by Henry R. Glenn, Associate General Counsel of the Association. With these documents generally available only highlights will be touched upon here.

While premium tax increase measures came before eight legislatures in 1953, none was enacted. No new imposts in the area of state income taxes were enacted. Municipal or local taxes on life insurance companies were broadened by new enabling legislation in four states, but seven states failed to enact bills of this character.

A variety of bills liberalizing investment laws applicable to domestic companies were enacted in a number of states. These included broadening of "free investment" limits, mortgage limitations were relaxed in a few states, various forms of corporate and public securities were authorized in some states, including various categories of housing and re-development securities.

In the state legislation field generally, legislation of special significance included authority to the Superintendent of Insurance in New York to issue regulations relative to allocation and classification of income and expenses, enactment of a requirement for the filing of commission rates for group insurance in New York, liberalizing amendments to the expense limitation statute in New York, an enactment permitting the New York Superintendent

to impose fines for certain insurance law violations, and enactment of the so-called $20,000—$40,000 limit for group life insurance in five states. Failure of any additional states to pass cash sickness legislation in the face of introductions in twelve jurisdictions continues to be significant as an indication of public reaction to this type of coverage.

Generally speaking, although 1953 was a heavy legislative year, there was very little legislation at the state level that could be regarded as creating special difficulties for the life insurance companies generally. Efforts on the affirmative legislation side continue to include enactment in additional states of the N.A.I.C. Model Group Insurance Bill with the $20,000—$40,000 limit, revision of Section 213 of the New York Insurance Law, legislation permitting of the use of photographic reproductions as evidence, and certain amendments to the Standard Non-Forfeiture and Valuation Laws.

Information and Life Insurance

There is little of magnitude that happens in the life insurance business that does not find its way into one or more of the many reports made to the organizations representing the business. In matters of legislation, state and national, one may look to the American Life Convention and the Life Insurance Association of America. One may look here relative to other areas as well, particularly reports of the several committees. I have availed myself freely of access to them and I suggest consulting them for details. The particular papers are noted below:

Proceedings of the American Life Convention

Robert L. Hoog, Annual Report for 1953
Ralph H. Kastner, Review of Legislation and Litigation in 1953
Alfred N. Guertin, Actuary's Report (1953)
1953 Committee Reports: A.L.C. and Joint

Proceedings of the Life Insurance Association of America

Bruce E. Shepherd, The 1953 Life Insurance Record
James J. O'Leary, 1953 Record of Life Insurance Investments
James J. O'Leary, Report on Investment Research Program During 1953
Henry R. Glenn, Association's 1953 Legislative and Legal Activities

Review of Property Insurance

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The year 1953 was a boom year following a series of boom years during which business operated to a considerable degree on an artificial inflationary economy bolstered by huge expenditures of money, materials and manpower for armaments. However, 1953 did not exceed previous boom years in all respects and gave evidence of a levelling off and even a slackening off in certain important segments of the economy while at the same time rising to new highs in others. The basic economic facts are sufficiently contradictory to permit many diverse yet logical conclusions. Optimists find evidence of a continuing high level of business activity well into the future while pessimists find significant signs of a definite downturn.

Very Favorable Year for Insurance

The year 1953 was very satisfactory for fire and casualty insurance carriers. Overall volume advanced by about 10% to more than $9½ billion, of which slightly more than $7 billion was underwritten by stock companies. The over-all loss ratio, which jumped from 50.2% in 1949 to 60.2% in 1951 in the stock company field, declined almost two points in 1952 and another two or three points in 1953. Meanwhile, the over-all expense ratio has declined fractionally in each of the last three years. Preliminary estimates indicate that 1953 may show a loss ratio (losses plus loss adjustment expenses incurred to premiums earned) between 55% and 56% and an expense ratio (expenses incurred to premiums written) between 35% and 36%.

This would indicate a combined loss and expense ratio for 1953 for all stock carriers of about 91%, probably fractionally higher. Thus 1953 shows the best gross profit margin since 1949. In general, carriers writing mainly fire lines showed an average increase in volume of about 5% and a slight increase in loss ratio while carriers with a large volume of casualty business showed an average increase of about 15% in volume and a decided improvement in loss ratio. The outlook for 1954 is for a modest increase in volume and a somewhat higher combined loss and expense ratio. It should be a good year with higher net investment income and lower taxes offsetting to a considerable degree the anticipated downward cycle in underwriting earnings.

Numerous Company Changes

Since the turn of the century, some 4,500 new carriers have entered the fire and casualty field while about 3,500 have retired. This net gain of 1,000 companies brings the current total to nearly 3,500. In addition there are always numerous changes in name, contributions to surplus and changes in capital. An expanding economy naturally brings more money and more companies into insurance, while periods of declining business tend to slow down the organization of new carriers and increase the number of retirements.

Superimposed on the changes brought about by general economic conditions were many more dictated by fundamental factors within the insurance

business itself. One important factor was the development of the group or fleet plan of operation. The original impetus behind this development was to secure additional agency representation and make possible more intensive cultivation of territories than was permitted under agency limitation rules adopted by the industry. Of even greater importance was the legal separation of fire-marine and casualty-surety underwriting powers. This not only made necessary the organization of separate carriers for the rapidly growing casualty lines of business but encouraged the organization of fire carriers by casualty companies and vice versa to preserve agency plants and underwrite full coverage automobile insurance under common management.

The Supreme Court decision holding insurance to be commerce, and thus subject to anti-trust laws where it crossed state lines, put an end to industry agreements on agency appointments. Without the necessity of separate corporate entities to maintain agency plants a number of fleet operations have been simplified by consolidation. Passage of multiple line legislation to permit a single carrier to underwrite both fire and casualty lines not only slowed down the organization of subsidiary carriers but permitted the consolidation of fire and casualty companies.

During 1953, almost twice as many carriers entered the fire and casualty field as retired from it, 67 as against 34. These new companies were launched with more than $16 million paid in capital or surplus, of which $4,385,365 came from parent insurance carriers and $2,745,874 from foreign insurance companies to establish United States branches. Additional capital funds of over $30 million were paid into 52 established companies, including $2,785,230 originating from parent insurance companies. Thirty-four companies increased their capital by $16,898,214 through the declaration of stock dividends. Thirty-four companies changed their title during the year.

The Challenge of Competition

Competition is the life blood of business in a free economy and the insurance business certainly has its share. It exists not only among companies of the same type but between bureau and non-bureau, stock and mutual carriers. The industry entered the multiple line era not only with fire companies competing for casualty insurance and vice versa but with competition from life companies for accident, health and hospitalization insurance. Thus, the ever present competition among companies for executives, personnel, agents and business has been stepped up.

Competition will become keener and more emphasis will be placed on merchandising and distribution. The American Agency System and the established rating bureaus, which largely built the fire and casualty insurance business as we know it today, are being challenged. This has always been so but today the challenge is more urgent. The days of the order-taker are numbered. So far, competition by different merchandising or rating methods has been most active in the automobile insurance field.

Competition in Automobile Field

Better than a five fold increase in ten years has boosted total auto premiums to about $4 billion. Twenty five million additional cars and many million new assureds, who have purchased insurance mostly because of the auto financial responsibility laws, have changed the whole aspect of the automobile insurance market. Higher and higher rates have added fuel to the fire.

New methods of merchandising and operation have not been confined to any one class of carrier; there are stock companies, mutual companies and reciprocals engaged in this competitive struggle. Actually, the competition is often keenest among the so-called independent carriers.

Some operate with a policy renewable every six months and with billing by the home office. This curbs over-all operating expense, makes current high rates more palatable for the insured, and reduces the lag between rates and experience. Some carriers charge a policy fee at inception of the contract but not on renewal. Agents retain this initial policy fee and are paid a small servicing fee on each renewal. They must, therefore, seek new accounts each year to maintain their income. With lower acquisition costs and more selective underwriting, the price differential has permitted them to do this most successfully.

Another carrier, backed by one of the country's leading merchandisers, has gone at the problem of distribution somewhat differently, but with strikingly successful results, through low over-all operating expenses and emphasis on class rates and underwriting. It is reported that this one carrier added some $50 million in automobile business in 1953 to the $117 million written in 1952. Other carriers have successfully merchandised insurance through extensive advertising to the consumer by mail, by newspaper and magazine ads, by radio and by television. If to a rate differential, based mainly on lower over-all operating cost, is added an increment due to better underwriting experience, the gap widens to substantial proportions.

Steps Taken to Meet Competition

Counter measures have been taken to meet this competition for good automobile business. About the middle of the year, an important West Coast company, at that time a member of the National Bureau, filed an independent schedule of rates for private passenger cars in the State of Washington as a means of meeting competition. Risks were separated into six classifications based on mileage, driver age and auto use.

The National Bureau and the Mutual Insurance Rating Bureau, after months of intensive study and debate, developed a revised classification system with seven classes, reflecting the use of the car, mileage and the age and the maritial status of the operator. The seven classification plan permits a closer recognition of recognized hazards of automobile operation than was possible under the three class plan which is superseded. While it involved both increases and decreases in rates it did not change the statewide average rate level except in a few instances. During the year 1953, the plan was adopted in 36 states and the District of Columbia. However, one group resigned from the Bureau, for automobiles lines, to enable adoption of a merit rating plan superimposed on the new classification plan.

Merit rating has a strong psychological appeal and is being considered carefully. Unfortunately, it not only presents difficult operational problems but could not be adopted without a general rate increase or in place of a rate decrease. In order to grant a 10% premium credit to the estimated 90% of claim free auto owners in any one year would require an increase in the overall rate level of 9.9%.

Other Competitive Measures

Meanwhile another West Coast group put $2 million into a new participat-

ing carrier to write auto business at 15% new and renewal commission with a bonus commission based on volume and experience. It issues a continuous policy with six month renewals handled directly by the company. About the same time another company, which had been organized earlier in the year to write business at competitive rates on the basis of lower commissions, refined rate classifications and automatic renewal and billing by the company, raised its rate of commissions to 15% for both new and renewal business. Another large mutual group secured approval of a six-months auto policy in several western states at one half the annual rate with dividends payable semi-annually.

Under a new broadened coverage developed in 1953 (available in January, 1954, in forty states, the District of Columbia, Puerto Rico and Alaska) an automobile liability insurance policyholder may now protect himself and family members of his household against medical expenses for automobile accident injuries sustained as pedestrians or bicyclists or as drivers or occupants of any automobile not owned by an insured under the policy. This new form is termed "automobile extended medical payments."

Medical payments coverage has become increasingly popular and is carried by nearly 60% of policyholders outside of Massachusetts. Its value lies in the fact that roughly one-quarter of all automobile accidents offer no means of recovery against any other person. Medical payments applies irrespective of fault. It therefore covers the numerous injuries sustained by drivers through their own negligence, members of drivers' families and cases where contributory negligence would otherwise bar recovery.

Competitive Methods Spreading

Thus in 1953, competition was intensified and it will be only a question of time until some of these other merchandising methods, which are proving successful in the auto field, will be more fully extended to other lines. In fact, a large independent company, which previously specialized in automobile insurance, has already laid plans to underwrite dwelling fire business and effective March 1, a leading multiple line stock company group will terminate its subscribership to various rating organizations as regards certain dwelling forms and auto physical damage.

The industry is never without problems and in December, 1953, over 50 groups of stock fire, casualty and marine insurance companies formed the American Insurance Association for the stated purpose of providing a forum for free discussion of the problems affecting the business.

Legislatures Active

Although regulation of the insurance business remains under state jurisdiction, more than one hundred bills dealing with insurance in one form or another were introduced into Congress last year. They dealt, in the main, with such matters as Social Security, flood coverage and war risk insurance. The Federal Crop Insurance Corporation announced plans for extending its operations both geographically and with respect to crops insured. The Federal government also displayed renewed interest in operations of mail-order insurance carriers. A Senate Judiciary Committee began exploratory hearings at which state laws and supervision were criticized by officials of the Department of Justice, the Federal Trade Commission and the Post Office Department.

At the state level, 1953 was an active legislative year with all states but Kentucky, Louisiana, Mississippi and Virginia meeting in regular session. Automobile insurance and regulatory legislation held the limelight. Battles raged over compulsory insurance, financial responsibility laws, compulsory auto inspection, impoundment of uninsured vehicles involved in an accident, unsatisfied judgment funds, etc. Non-occupational temporary disability benefits were the subject of more than thirty bills in eleven states. Although 1954 will be an "off" year, with only fourteen state legislatures holding regular sessions, there is an unusually large number of interim studies on insurance matters being conducted and special sessions may be held in a number of other states. Considerable activity is expected in the field of health insurance with four states, Arizona, Louisiana, Massachusetts and Michigan, slated to consider non-occupational temporary disability benefits laws.

Impact of the Automobile

How sixty-eight million Americans can drive their fifty-six million automobiles half a trillion miles a year without killing thirty-eight thousand persons, injuring two million more and causing an economic loss estimated in billions of dollars remains the number one problem of this automobile age. Needless to say, the impact of the motor vehicle on the insurance business has been staggering. Automobile insurance has become the largest line written in the fire and casualty field and is now running about two and one-half times the volume of straight fire business.

In the stock company field automobile premiums approached $3 billion in 1953, an amount exceeding the total business of all stock carriers for any single year prior to 1946. Nearly $1 billion additional automobile business is written by mutual and reciprocal carriers. This nearly $4 billion in premiums on automobile insurance by all classes of carriers compares with about $600 million only ten years ago. However ten years ago there were only 31 million cars, much lower rates, fewer financial responsibility laws and lower insurable values.

Compulsory Automobile Insurance

Although the primary social and economic problem is to reduce motor vehicle accidents, there is an important collateral problem which has long baffled lawmakers and the insurance industry—the problem of the uncompensated accident victim. This problem is complex and has many ramifications. Its proper solution is one of the most vital problems facing the property insurance companies. Probably the most frequently suggested solution is compulsory automobile liability insurance.

Compulsory automobile liability insurance was first sponsored in Massachusetts in 1918 by a prominent Boston lawyer who happened to witness an automobile accident and became interested when dependents of the innocent victim were unable to recover damages. Compulsory legislation was rejected for seven years but finally the 1925 Joint Judiciary Committee, comprised of sixteen lawyers, sponsored the measure. Under threat of a monopolistic state fund, the law was pushed through a stormy legislative session in 1925 and became effective January 1, 1927.

Not a Safety Measure

Compulsory insurance does not prevent accidents. After passage of the

law, fatal accidents in Massachusetts showed a steady rise and reported injuries almost doubled in the following ten years—out of proportion to the increase in number of automobiles. Under compulsory insurance every minor accident spawns claims for damages because of the American public's attitude of "let the insurance company pay." Courts are swamped with damage actions. For the five months' period before the Massachusetts compulsory automobile insurance law took effect, there were 3,204 negligence cases in the Superior Court. For the five months after the law became effective, there were 7,297 such cases. Moreover, claims tend to become exaggerated and juries become more liberal, while courts become more congested.

Each year the Insurance Commissioner of Massachusetts is confronted with the problem of establishing rates for the ensuing year. While this is an actuarial problem, it has developed into an annual Roman holiday, used by political opportunists to bring their names before the public through unwarranted and unjustified attacks upon insurance companies. In general, rates have been consistently inadequate. One insurance commissioner resigned rather than submit to pressure to reduce rates arbitrarily. Pressure for lower rates takes many forms, including cutting down coverage. Ten years after the enactment of the Massachusetts law, guest coverage was eliminated, except on a voluntary basis.

Position of Producers

Insurance producers have also been under pressure in Massachusetts. When the compulsory law went into effect, the commissioner then in office reduced the commission allowance in the rates from 25% to 15%. The insurance companies, by making readjustments in various items of expense, were able to increase this to 17.2%. Later, when there seemed to be no way of reducing rates except by reducing commissions, they were cut to 12%, with the regional agents' and brokers' commissions being still smaller. Currently, the rates of commission are 10%, 8% and 7%, despite the fact that the agent has more to do because of the necessary additional forms required under the compulsory insurance law. Under a compulsory law, the producer's remuneration becomes a service fee or handling charge rather than a sales commission.

The elimination of sales effort through cutting commissions carries a heavy penalty. Only about 38% of Massachusetts' registered motorists carry liability insurance in excess of the statutory minimum—just about half the average for the rest of the country. The story is very similar on medical payments and guest coverages. Thus, compulsory insurance results in less rather than more coverage and there is an increasing number of cases where minimum limits are totally insufficient to take care of the severely injured accident victim. In addition, there are important gaps in compulsory coverage—hit and run cases, stolen or unregistered cars and the 10% of accidents involving nonresident drivers. Compulsory insurance is not complete insurance.

Financial Responsibility Legislation

At first glance, compulsory automobile liability insurance may seem desirable, but under our system of government there is grave doubt that any state can adopt legislation similar to that of Massachusetts without experiencing similar results. Insurance interests, who are very close to this problem and see these dangers at first hand, have fought compulsory legislation in other

states consistently and so far successfully. In 1953 alone, some form of compulsory automobile insurance was introduced in more than twenty states.

Connecticut, in 1926, became the first state to adopt an automobile financial responsibility law. This became the accepted pattern and state after state adopted similar measures, plus assigned risk plans, in lieu of compulsory insurance or state funds or both. By gearing the auto financial responsibility laws administratively to take advantage of the better accident reporting and by controlling the irresponsible driver by suspension of driving privileges, these laws contributed to the primary cause of highway safety. There are no deaths, injuries, suffering, property damage or claim payments for accidents which do not happen.

If 20% of the drivers cause 80% of the accidents, a fact developed through sample research studies, still closer liaison should be established between assigned risk plans and registrars of motor vehicles first to rate-up and finally to eliminate the chronic accident repeater from the highways. Protecting the public against injury by an irresponsible driver is far more important than any monetary compensation to the victim or surviving relatives. Financial responsibility does not excuse driving irresponsibility. Records of thousands of drivers show that a driver who has been in one accident is twice as likely to get into another, a driver with two accidents is three times as apt to become involved again, and a driver who has been in four accidents is seven times as likely to crash again as is the driver with a clean record.

Increase in Insured Motorists

The first auto safety financial responsibility laws, based on a model uniform law developed by the American Automobile Association in conjunction with the National Conference on Street and Highway Safety and the National Committee on Uniform Traffic Laws and Ordinances, required proof of financial responsibility for future accidents only. Under this impetus the number of insured auto owners in financial responsibility states approximately doubled, from 25% or 30% in the mid-twenties to 60% in the mid-thirties. Despite this substantial gain, there was a new wave of agitation in many states to increase further the number of insured motorists through compulsory legislation.

In New Hampshire, a new idea was presented in 1935 which alarmed both agents and companies even more than compulsory insurance. This provided for an extra license fee to create a fund out of which would be paid liability and property damage claims against uninsured motorists. The enabling legislative bill was declared unconstitutional before passage but, on the threat to revise the measure before the next session of the legislature, a special interim committee was appointed. This committee brought forth the modern security-type auto safety responsibility law requiring security to satisfy judgments for the first accident.

This more stringent security-type auto safety responsibility law became the model and has been enacted in forty-four states, Hawaii and five Canadian provinces. Seven of these forty-four states adopted this type of law with an effective date in 1953, and one state made the effective date January 1, 1954. Four states adopted higher minimum limits in 1953, and an additional state had higher limits become effective January 1, 1954, bringing to seven the total number of states now requiring more than $5,000/$10,000 limits. Except for Massachusetts, some type of auto financial responsibility law is operating in every state and assigned risk plans are in all states. Insurance coverage,

under the tightened laws, has increased to between 80% and 90% of registered vehicles, varying state by state. These laws have brought a very great measure of protection, not only in the increase in the number of those carrying insurance, but in the deposit of security by those who do not carry insurance.

However, there is still a gap in coverage and public opinion is aroused about uncompensated victims and higher and higher rates. Advocates of compulsory automobile insurance are still on the march. Up until the final days of the 1953 New York legislative session, it was touch and go on compulsory insurance; New Mexico missed it by only one vote and a compulsory measure passed one house in Idaho. Compulsory legislation has already been introduced in the 1954 New York legislative session and has the backing of Governor Dewey and the insurance department.

Changed Concept of Auto Insurance

The whole concept of automobile insurance has changed over the years from that of protecting the owner or operator to the role of protecting the injured third party. Because this is very much in keeping with trends of the times, the movement may be slowed but probably will not be stopped. The crying need of the moment is to find some way of taking care of the innocent motor vehicle accident victim without incurring either the evils engendered by compulsory insurance or abandoning this important field of private enterprise to socialization and the potential bureaucratic inefficiency of a state fund.

While the security-type auto financial responsibility law is the most satisfactory yet developed both to reduce the number of accident prone drivers and compensate the innocent victims of negligent motorists, it possesses one weakness—the lack of consideration for the first victim of a financially worthless driver. Efforts to extend the financial responsibility laws to afford the first victim the same protection afforded subsequent victims led inevitably back to the proposal made in New Hampshire in 1935, a proposal which caused great consternation in insurance ranks.

Unsatisfied Judgment Fund

This type of scheme has become known as an unsatisfied judgment fund and is still strongly opposed by those who maintain that it is not equitable to require those who buy insurance to pay the cost of the losses of those who refuse to insure. Moreover, an unsatisfied judgment plan can only function when the vast majority of motorists carry insurance. In times of economic distress, there would be grave danger of the scheme falling down, with the final result a virtual invitation for the state to step in with a state fund.

Unsatisfied judgment funds have been adopted in seven Canadian provinces, North Dakota and New Jersey. They are intended to be an extension of the safety responsibility laws and have the same underlying philosophy, first, to reimburse the accident victims of negligent drivers and, second, to remove such drivers from the highways. With the unsatisfied judgment fund included as a part of the safety responsibility law, the judgment-proof motorist does not escape the full effect of the law as there is no reluctance on the part of his victim to take legal action. In fact, such action must be taken to have recourse to the fund.

Experience of Unsatisfied Judgment Funds

The first unsatisfied judgment fund was enacted in Manitoba and became

effective December 1, 1945. It was made available to satisfy judgments above $100 and up to the $5,000/$10,000 limits of the financial responsibility law in cases of bodily injury or death. The fund was financed by a levy of $1 on each motor vehicle in the license year beginning December 1, 1945 and 50c in the next year. No levies were made again until one of 50c for the year beginning December 1, 1952. The cost for the first seven years thus averaged just over 15c per car per year. Because of the successful experience of the Manitoba fund, insurance companies operating in British Columbia agreed to indemnify unsatisfied judgment creditors as an inducement to the enactment of a safety responsibility law. It is estimated that the total cost in British Columbia averages about $20,000 per year, spread among some 130 insurance carriers. The North Dakota Unsatisfied Judgment Fund was started in 1948 with $1 collected with each motor vehicle license and no further levy was made until 1953, when an additional $1 was collected.

All of these funds have operated in low-rated territories and on a fairly limited basis. New Jersey has adopted a more ambitious scheme, scheduled to become effective April 1, 1955, which also covers property damage claims. The initial fund will be created by requiring every person who registers an uninsured motor vehicle to pay an additional fee of $3, those registering insured vehicles will pay $1 and insurance companies are to pay one-half of one per cent of direct auto liability and property damage premiums written in New Jersey. Insurance companies are to be assigned cases involving uninsured financially irresponsible drivers, hit-and-run drivers and unauthorized drivers. This leaves the investigation, processing and litigation of claims with the private insurance industry and not with the state.

Other Measures

Another method of encouraging insurance under safety responsibility laws concerns the impoundment of uninsured motor vehicles involved in an accident. Four Canadian provinces have adopted impoundment laws and report favorably upon their public acceptance and general effectiveness. In Manitoba and British Columbia, insured cars increased from about 30% to 90% and from 40% to 95%, respectively, following enactment of such measures.

A voluntary insurance plan was developed late in 1953 by the Insurance Industry Committee on Motor Vehicle Accidents. Designed to forestall demands for compulsory insurance, the plan provides indemnity for an insured motorist and members of his household for uncollectible valid claims against an uninsured motorist. The coverage would be written separately or as an endorsement to an auto liability and property damage policy for limits of $10/20/5,000, subject to $300 deductible, at an estimated cost of 2% of the basic premium. To avoid a conflict of interest between an insurance company and its insured, a defense and reinsurance corporation is contemplated which would reinsure this new coverage, investigate claims, provide the necessary defense and settle claims under the coverage. It is intended that the plan be supplemented by an impoundment law in each state in which it is adopted.

Straight Compensation

Abandoning the basic theory of liability based upon fault and substituting a straight compensation plan with a specified schedule of benefits has also been proposed as a solution. The Council for Research in the Social Sciences of Columbia University, under a grant from the Rockefeller Founda-

tion, made one of the first really comprehensive studies along these lines, with results published in 1932. Proponents stress compensation in place of litigation, cite the long delays in court cases (two or four years), high court costs and contingent lawyer's fees (25% to 50% of gross recovery) and final verdicts often too high or too low. They maintain that courts and the personal injury system are as out of date and inadequate as are the highways to carry the load placed upon them by the tremendous increase in number of motor vehicles. Further, that accidents are an inevitable risk of automobile travel and the injured victim presents the same social problem, whether his injury was caused with or without fault. This would contravene the long-accepted concept that a person should be held responsible for damages only if his negligent act causes an injury.

Such schemes have been likened to the situation which exists under workmen's compensation insurance. This would not be true; the mutual responsibilities of the basic employer-employee relationship do not exist. Auto accidents do not occur under the watchful eye of an employer who is financially interested in his workmen's compensation rate and they present a much greater opportunity for malingering, exaggeration and fraud. Automobile injuries are more numerous and often more serious than those incurred in industrial accidents. Determination of proper compensation for children, students, housewives, the unemployed and the aged present additional problems, just to mention a few. Furthermore, large and expensive bureaus would probably be created to administer any compensation scheme.

The Choice

Proponents and opponents of compulsory insurance agree as to the ultimate goal—the compensation of the accident victim. While compensation is important, the all-important objective is the elimination, as far as humanly possible, of the motor vehicle accidents which make compensation provisions necessary.

Safety responsibility laws have made a worthwhile contribution but they leave certain gaps in coverage. Compulsory insurance would leave most of the same gaps. Under either system something additional would be required to close the gaps. Because of past experience and an intimate knowledge of evils under compulsory insurance, leading lawyers, bar associations and most people in the insurance industry advocate continuing with safety responsibility laws, augmented by the plan of voluntary additional coverage drafted by the Insurance Industry Committee and impoundment of uninsured autos involved in accidents. In twenty states, special legislative commissions were established to study the feasibility of compulsory automobile insurance legislation and in each case compulsory insurance was rejected. The weight of informed opinion is on the side of the safety responsibility approach.

Automobile Physical Damage Experience

Automobile physical damage premiums underwritten by stock carriers reached an estimated $1,265,000,000 in 1953, up nearly 5% for this year. This record volume compares with a total of only $155 million written ten years ago. The tremendous increase in this relatively short period was brought about by record production of new automobiles, higher values on all autos, both new and used, and higher rates. The disastrous experience immediately following

World War II set the base for substantial rate increases and the line has been very profitable in recent years.

The combined loss and expense ratio, which rose nearly fifteen points from a record low in 1949 to just over 90% in 1952, turned downward again in 1953 and should average slightly above 85% for the year. With new car production for 1954 estimated at only 10% below the high level of production in 1953, physical damage volume should continue to advance in 1954 at a modest pace, probably something below 5%. Rate changes already made in numerous jurisdictions have been generally downward, because of favorable experience, so profit margins in the year ahead may be expected to narrow.

Automobile Liability Experience

Net premiums written by stock carriers on automobile bodily injury insurance advanced by more than 15% to reach an estimated $1,100,000,000 for the year as against a premium volume on this line of only $200 million ten years ago. Higher rates, a much larger number of automobiles and additional and more stringent auto financial responsibility laws contributed to this great upsurge in premiums. Emergency rate increases in 1951 raised the nationwide rate level on passenger cars an estimated 17.9% and in 1952 additional rate increases averaged 11.5%. These increases were not reflected in experience until 1952, and then only partially.

The loss ratio declined three points in 1952, but the line was still in the red. However, in 1953, the major portion of the rate increases were reflected in experience and the line returned to the black with an estimated profit margin of nearly 5%, the best showing, except for 1949, in ten years. This line still has a long way to go to hope to recoup past losses but at long last the trend of experience is favorable. In 1954, volume should continue to advance, but at a slower rate, and experience should at least be as favorable as in 1953. There is still some benefit to accrue from rate increases but average loss settlements continue to edge higher. Fortunately accident frequency has levelled off and continued emphasis on safe driving and law enforcement may bring some further improvement.

Automobile property damage premiums advanced by at least 20% to reach an estimated $560 million in the stock field in 1953, a substantial increase over the $76 million written just ten years ago. Substantial rate increases made in 1951 and 1952 finally were reflected in underwriting experience in 1953. This caused a dramatic drop of at least ten points in loss ratio and returned the line to the black for the first time since 1949, the only other year in the last ten in which auto property damage insurance was out of the red. Just as is the case with auto liability, some benefit is still to accrue from rate increases already made and accident frequency is lower but average loss settlements are edging higher. The outlook for 1954 is for a modest increase in premiums and continued satisfactory underwriting experience.

Fire Insurance Experience

Fire damaged or destroyed an estimated $903,400,000 worth of property in the United States last year according to the National Board of Fire Underwriters. This is 15.1% higher than in 1952, when losses totalled $784,953,000 and is the highest on record for the third consecutive year. The losses reflect to a large degree the nation's expanding economy, and include the result of the disastrous fire last August at the Livonia plant of the General Motors Corpora-

tion. Losses for the month of December were particularly heavy, amounting to $83,440,000, an increase of 22.6% over losses for the preceding month and an increase of 12.6% over losses for December, 1952.

Straight fire insurance, which has decreased in relative importance to less than one-fifth of the total fire and casualty business underwritten by stock carriers, declined fractionally in 1953 to about $1,275,000,000. Net premiums written began to level off in the latter part of 1951, as additional states permitted writing term business on the installment basis or on an annual renewal basis. This continued into 1952 and 1953 so that net writings were off nearly 1% in each year, the only time since 1939 that net premiums on straight fire business failed to advance. Unquestionably, the line would have shown a healthy gain except for the renewal of term business on an annual basis.

Underwriting experience has been unusually favorable for the past several years but has definitely entered a less favorable cycle on a basis of lower rates and rising losses. The estimated profit margin for 1953 was still at least a healthy eight points as against slightly better than ten in the preceding two years and a phenomenal fifteen in 1949 and 1950. The outlook for 1954 remains favorable with volume remaining about level and the loss ratio edging higher.

Extended Cover Experience

Extended coverage premiums advanced modestly in 1953 to reach about $360 million in the stock company field. Advances in loss ratio however, were far from modest. Tornadoes were unusually frequent, as during the year there were sixteen windstorms which caused more than $1,000,000 property damage loss each. One in Southwest Michigan and Northern Ohio killed 143 persons and caused property damage of about $13 million. This was followed by a storm in Central Massachusetts and New Hampshire which took a toll of 89 lives and caused property damage of $50 million. Weather bureaus tallied more than 500 separate tornadoes in 1953 as compared to a long term yearly average of just over 150. Experience varied markedly among companies, depending upon the concentration of risks in affected territories and reinsurance coverage. Over-all the line slipped back into the red. The outlook for 1954 is for a further increase in volume and, should we have a more normal year as regards windstorms, experience should improve materially.

Inland marine premiums written by stock carriers advanced about 8% in 1953 to reach nearly $290 million climaxing a steady yearly rise from $28 million written in 1933. This growth reflects the trend toward broad flexible coverage, the high level of commercial transportation, inflated dollar values and the increasing popularity of personal property floaters. Underwriting experience showed improvement to increase the estimated profit margin to better than 10%. Outlook for 1954 is for continued advance in premium volume and steady satisfactory underwriting results. Ocean marine volume registered a small decline in 1953 but loss ratios showed some improvement so the line remained well in the black for the year. The new nationwide definition of marine insurance, adopted in June, 1953, by the National Association of Insurance Commissioners, had been ratified by thirty-five states and three territories by the year end.

Workmen's Compensation Experience

During 1953, twenty-six states amended their laws to increase benefits payable under workmen's compensation laws. Two states adopted occupational

disease legislation bringing to 46 the number of states having this type of law. A new and simplified workmen's compensation policy was adopted in thirty-five of the forty-three states permitting operation of private carriers, to become effective October 1, 1954.

Volume of workmen's compensation insurance written, which had declined moderately in 1949 and 1950, advanced by better than 12% in each of the last three years to reach an estimated all-time high of $640 million in 1953. This compares with less than $90 million written in the depression year, 1933. The line was in the red in 1951 and barely in the black in both 1950 and 1952.

A number of steps were taken in 1952 which laid the foundation for the general improvement in experience witnessed in 1953. Rate increases, ranging up to 20%, were obtained in a majority of states with only nine revisions involving rate decreases. Additional states accepted a loading factor of two and a half points for profit and contingencies reducing the number of states without such a factor to ten. Eleven additional states approved a $10 expense constant on risks with premiums less than $500. Outlook for 1954 is for a leveling off in premium volume and continued satisfactory underwriting experience.

General Liability Experience

Net premiums on liability lines other than automobile increased by more than 15% in 1953 to reach an estimated $320 million in the stock company field. Inflation in claim costs began to be felt in 1948 and the line was in the red for each of the following four years. Substantial rate increases were secured in 1951 and 1952 on coverages written on a fixed exposure basis, particularly area and frontage. Rate increases on these classifications were approved in forty-four rating jurisdictions amounting to 26.6% on a country-wide basis and equivalent to 16.6% for all owners', landlords' and tenants' liability insurance. Higher excess limits rates on bodily injury liability were adopted in all states and territories except one. During 1953, general liability rates were raised in eighteen states. Underwriting experience improved in the latter part of 1952, but it was not until 1953 that any real benefit was reflected in the experience. The line returned to the black in 1953 and should show some modest improvement in 1954.

Accident and health insurance underwritten by all classes of carriers, including life insurance companies, forged ahead an estimated 18% to reach nearly $2¼ billion in 1953. However, in the stock fire and casualty field the increase averaged less than 15% and total volume amounted to about $425 million. Experience remained favorable with an estimated profit margin of nearly 10% on commercial business and less than 5% on group business. Outlook for 1954 is for continued healthy growth and satisfactory experience.

Fidelity and Surety Experience

Fidelity and surety volume held about even with 1952 and is estimated at between $185 million and $190 million for 1953 in the stock company field. Fidelity experience has averaged about a 10% profit margin for the last several years and 1953 is expected to show about the same, despite continued unsatisfactory experience on bank business. Volume on fidelity lines should increase in 1954 as this year will witness the return of the three year renewal cycle on term business. Experience should remain favorable. With booming

construction for the seventh consecutive year, contract bond business has been well sustained and over-all surety volume remained very near the 1952 level.

Experience on surety lines in 1953 was excellent with an estimated profit margin between 15% and 20%. Outlook for 1954 indicates a continued high level of construction with a corresponding large volume of contract bond business. However, with increased competition and lower profit margins on contracting work the bond business will have to be more selective to maintain the fine record of recent years.

The various miscellaneous small lines were generally satisfactory in 1953 with glass, burglary and theft, boiler and machinery, credit, and hail insurance showing a modest increase in volume and good profit margins.

The fire and casualty industry enjoyed a very satisfactory year with sufficient underwriting and investment earnings to build surplus funds to a point more in line with the greatly increased commitments assumed in our booming economy. It gave a good account of itself in 1953 and will continue to do so in 1954 and for years to come. Our dynamic expanding economy with its growing population and steadily rising standard of living constantly opens new vistas for insurance. The fire and casualty business has kept pace with the increasing insurance needs of the public, has grown to impressive size and generally has won the confidence of the whole country both as to integrity and its capacity for valuable service.

Part III. Contributed Papers

Life Insurance Buying in Inflation

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I

The Problem

In the past fifteen years a major inflation brought on by two major wars has created doubts in the minds of many people about the soundness of some of the traditional channels of long term saving for future retirement and for estate creation.

One major method used by millions of people for the twofold objectives of estate creation and personal retirement has been life insurance. However, high prices, high personal income taxes, and reduced interest returns have made it more difficult in recent years for the average person to set aside excess funds for insurance, and at the same time, have made a greater amount of life insurance necessary to accomplish the objectives noted above.

While most savers deplore the effects of inflation on past savings,[1] (especially people now trying to retire on such savings) they are still very hesitant to turn to common stocks or other equities on a large scale, for fear of losing their savings in part or in whole in another "1929 crash." Many are seeking a compromise solution to the problem of retirement in an economy that seems destined for chronic inflation.

It is the purpose of this article to evaluate the proper role of life insurance in the uncertain economic climate that seems to characterize our present economy.

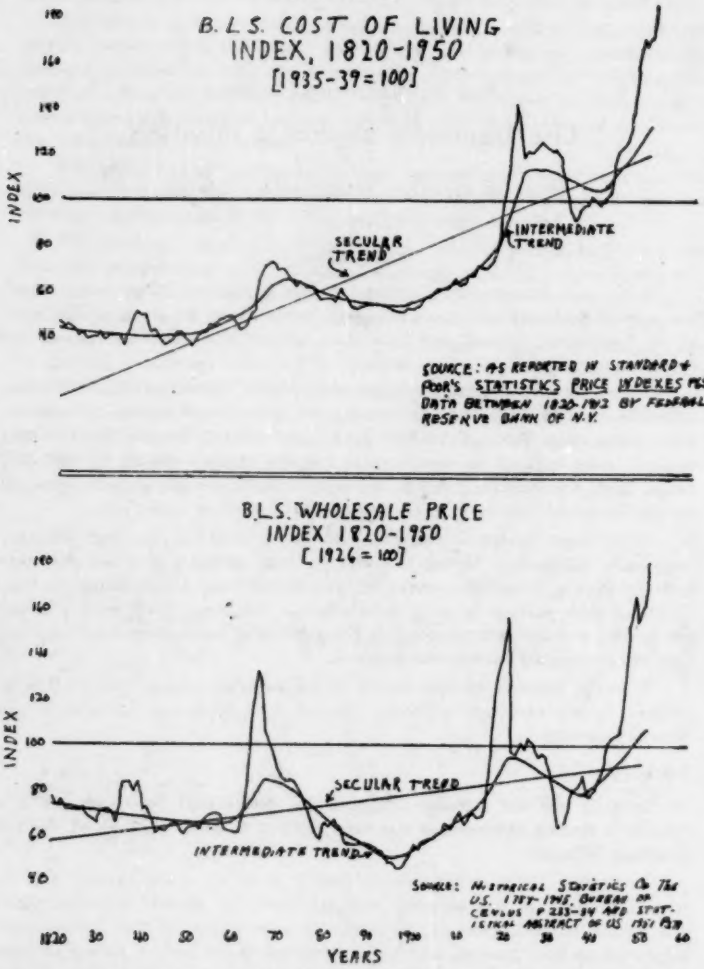
Summary

Initially we will attempt to dispel the notion that life insurance is a "hedge" against inflation, as has been claimed in some quarters of the life insurance industry.

In Section III it will be shown that it is by no means certain that the central problem in our economy will inevitably be chronic inflation. There are factors on both sides of the economic scale which, if they become more important as time goes on, may tip the balance either way. A listing of these factors lays the groundwork for the argument taken up in Section V that the real problem facing the individual who is trying to save for retirement is not necessarily "chronic inflation," but what is herein called "intermediate trend" of prices. (See Chart I) In business cycle theory such movements correspond most closely to the Kondratieff "long wave" of roughly 50 years. However, there is no attempt to develop a theory of price fluctuations

[1] For an interesting discussion on how devastating inflation can be on life insurance companies themselves as well as individuals, see Suetaka, Makoto "Postwar Trend of Life Insurance in Japan" Journal of the CLU, June, 1951 (pp. 264-270) and Sept., 1950 (pp. 295-303).

CHART I


B.L.S. COST OF LIVING
INDEX, 1820-1950
[1935-39=100]
INDEX
SECULAR TREND
INTERMEDIATE TREND
SOURCE: AS REPORTED IN STANDARD & POOR'S STATISTICS PRICE INDEXES PRE DATA BETWEEN 1820-1912 BY FEDERAL RESERVE BANK OF N.Y.
B.L.S. WHOLESALE PRICE
INDEX 1820-1950
[1926=100]
INDEX
SECULAR TREND
INTERMEDIATE TREND
SOURCE: HISTORICAL STATISTICS OF THE U.S. 1789-1945, BUREAU OF CENSUS P 233-34 AND STATISTICAL ABSTRACT OF US 1951 P.
1820 30 40 50 60 70 80 90 1900 10 20 30 40 50 60
YEARS

here. We have only tried to give several reasons why it seems unwise to abandon life insurance savings contracts, or other dollar obligations, as a means of saving for retirement with the justification given being the "long run inflationary trend of prices." It is pointed out that for the individual saver the shorter term price movements are probably much more significant in a lifetime savings program.

Complementing these ideas, it is brought out in Section IV that, in the past, individual savers have probably given little recognition of long run inflation in their savings plans. Such a conclusion is drawn from the fact that

there is little evidence of a "trend toward term" insurance, for meeting life insurance protection needs, with accompanying rise in investment in "equities," to hedge inflation. In fact, equities have been largely ignored by the great mass of savers in favor of life insurance, bonds, mortgages, and other "deflation" hedges which are currently in great favor and have been for many years.

In Section V, it is shown that there are good reasons for believing that this attitude will continue in the future. It is argued that there are many sound reasons for the purchase of life insurance as a means of saving, in spite of the arguments that support the chronic inflation idea. Until some suitable alternative comes along for the masses of middle income savers, life insurance will be a very important medium for long run savings plans.

The matter of alternatives to the life insurance method is discussed in Section VI. No attempt is made to give an exhaustive analysis of various plans for solving the problem of retirement in our economy. Only the highlights are reviewed and the central arguments pro and con for each method are indicated. The reason for reviewing these various plans is to point up the fact that there is much thought being given to helping the average saver overcome, in some manner, the loss in value of his savings occasioned by chronic inflation or by long swings in the price level which we have called intermediate trend. Most private plans involve the use of equities and formula timing to some degree to help solve this problem.

It has been concluded that, in the absence of any concerted private action toward a solution on a large enough scale, the future will be characterized by a greater and greater extension of Federal Social Security.

II

Life Insurance as a Hedge Against Inflation

It is often claimed that life insurance is the "perfect hedge" against inflation. We may deal with this question briefly before discussing the role that life insurance plays in individual savings programs.

If one means by "hedging the inflation" the preservation of buying power of savings in times of rising prices, no type of dollar obligations, including life insurance contracts which emphasize the savings element, qualify as hedges. In fact such investment media as bonds, mortgages, and life insurance are exactly the opposite. They are hedges against *deflation*.

When the argument is used that life insurance is a hedge against inflation, it is usually pointed out that in times of inflation the family needs for protection grow ever greater. Life insurance contracts emphasizing the term element, such as ordinary life, family income policies, etc., offer the ideal way to meet this need. Such contracts are much more than protection against inflation. They provide the income which furnishes the basic sustenance of a family which has lost its breadwinner because of premature death. They offer the only practical way for an individual to create an immediate estate for what amounts to only a nominal outlay. Such contracts can be justified, based on family need, at any stage of the business cycle. But they are not hedges against inflation, within the normal investment meaning of this term.

Is it likely that inflation in this country will ever go so far that the value of the dollars paid to a widow would be less than the dollars paid in

premiums on a term contract or ordinary life? At a young age, ordinary life premiums average only 2% of the face value of the contract, and term contracts cost considerably less. It can be appreciated that inflation would have to be drastic before the above-mentioned possibility would become a fact.

To summarize, savings made in life insurance contracts are never hedged against inflation. Premiums spent for pure insurance protection serve the insured's dependents at all times of the business cycle, but are no more a hedge than are premiums spent for fire insurance or automobile insurance.

III

Is The Problem Inflation or Deflation?

The question arises: What is the central problem facing the investor, inflation, deflation, or both? Oftentimes current events make it easy to overlook basic factors operating in a complex economy to raise or lower long-run price levels. For example, today's business picture seems dominated by a "good-times-can't-last-forever" philosophy. Therefore, many are worried more by prospective deflation than by inflation, although basic pressures will probably tip the scales upward over the next ten or twenty years at least.

Which problem will be of greatest interest to an individual life insurance buyer depends on which of the two objectives he is attempting to accomplish primarily: protection for dependents, or retirement for himself. These objectives of course may change, depending on what stage of life the buyer has reached. In his early years he may be more interested in protection, and later on, in retirement.

If his chief objective is protection, as pointed out in the previous section, purchases of life insurance policies emphasizing the term element will yield the greatest satisfaction or return per premium dollar. In this event his purchases could be reduced if deflation were in the offing, and would have to be increased if inflation is in the offing.

If the chief objective is retirement, however, and the life insurance buyer is therefore interested in savings type contracts, he stands to gain by deflation, and to lose by inflation. This follows because any saving at fixed interest returns (life insurance, U. S. Government bonds, savings accounts, etc.) will result in losses of purchasing power as prices continue to rise. Those who are cashing in ten year old U. S. Savings bonds today are painfully aware of the loss of not only interest, but of capital, they have suffered as a result of price changes during the past ten years. The $75 invested ten years ago in a Series E bond would have bought considerably more goods than the $100 received today when this bond matures. Likewise, those who are attempting to live today on the return from insurance programs set up when $100 a month was a satisfactory retirement income are often bitterly disappointed.

The low interest return on dollar obligations (including life insurance) has further complicated the investor's problem, for it is necessary to accumulate roughly twice the fund for a given retirement income than was necessary before 1930. This is due to a reduction of interest rates by approximately one half over the past thirty years. This is another result of the inflationary methods of governmental deficit financing, and the problem is tied in closely with other effects of inflation.

If enough people become convinced that the long term price trend in the United States will be upward indefinitely, there may be considerable

shifting in life insurance purchases away from savings type contracts into equity investments such as real estate, common stocks, or investment fund shares, whose values generally rise with prices.

On the other hand, if people decide that prices will be fairly constant, or even may trend slightly downward, the opposite result may take place, with greater emphasis being given to all forms of fixed dollar type of savings.

It may therefore be helpful to observe, in summary form, the central economic forces now operating that may cause prices to rise or to fall. Certain factors have been cited to show that the "trend" during the foreseeable future (perhaps 10, 15, or 20 years) will be upward. These factors, it is held, will operate practically to insure an upward rise in prices and business activity, and will cushion any temporary decline.

(1) The announced intention of government in the Employment Act of 1946 to maintain full employment in this country by any means feasible.

(2) The above goal will no doubt result in continued deficit spending by the federal government, particularly if a decline threatens. Such deficit spending is practically a matter of statute law.

(3) Over a long period there has been a tendency for wars to be closer and closer together. Since wars have always been financed by inflationary methods, there will be, perhaps for years to come, a constant undermining of national currencies.

(4) There appears to be no hope for appreciable lessening of international tension. This will operate to keep governmental defense spending high indefinitely.

(5) The inflationary pressure of the existing national debt will be felt for many years to come. The large debt must be constantly refunded, and there is pressure to maintain the market for government bonds. This necessitates injection of new streams of money into circulation as the government buys up its bonds from banks and individuals in order to maintain their price. Furthermore, it is doubtful if aggregate personal or business saving will be sufficient to offset this process.

(6) There is little automatic control over the money supply under our Federal Reserve system. There is no "built-in" check to government spending.

(7) Organized labor is in a position to demand constantly higher wages, which are reflected in higher prices; it is usually unwilling to allow wage rates to decline, however, if prices fall. This factor is especially strong under conditions of full employment.

(8) The farm price support program of the government tends to maintain the prices of food products, a basic budget item.

(9) There is a tendency for large business units to stabilize prices of some basic commodities. This factor is made stronger too, as the possibility of gradual exhaustion of certain national resources (coal, iron, oil, lumber, etc.) operates to raise costs of basic raw materials.

(10) The existence of certain "built-in" checks to deflation will soften the blow of any temporary decline in prices and will prevent a minor recession from turning into a major depression. Examples of this are unemployment benefits, insurance of savings deposits, closer control over the securities market, our system of amortized mortage loan credit, etc.

(11) Continued growth of population tends to create a need for the products of industry over a long period.

On the other hand there are quite a number of factors that might be cited to show that prices, far from continuing upward indefinitely,[1] will quite possibly tend downward during the next decade or two:

(1) Barring all-out war, the peak in defense expenditures has apparently been reached. This has been a major factor in causing an upward pressure on prices. Even if international tension fails to ease appreciably, this factor will greatly lessen what has been a great inflationary force. If international tension eases (and all of our foreign policy efforts are aimed at such a goal) a major inflationary force will have been removed, at least for a while.

(2) The extremely high level of investment since World War II by both government and business has raised industrial capacity to a new high point. There is some doubt that this rate of investment can be maintained indefinitely.[2] When investment slackens off, income, and with it prices, will also slacken off.

(3) Furthermore, when the fruits of this investment program result in more products for consumption purposes, still further downward pressure on prices will result (Note, for example, the recent cutback in auto production this year.)

(4) If our foreign aid program, and our Point Four program, are successful, world production will rise. Out of necessity it is likely that our program of tariff reduction will be continued and strengthened in recognition of our position as a creditor nation in the world. Increased imports will mean greater competition, and should have some lowering effect on prices.

(5) There is evidence that progress is being made in our control over the money system. It is recognized that the inflationary effects of war finance can be overcome at least in part by more enlightened debt management. Recent changes in political administration, and changes in cabinet appointments support the idea that the "accord" reached in March, 1951 by the Treasury and the Federal Reserve will be continued. Furthermore if inflation continues, more and more pressure will be exerted to give the Federal Reserve more power over credit issuance by member banks.

(6) The very ingrained nature of Americans to save for the future indicates that there still remains a major hope for those who think inflation can be halted. If the average person adopted an "inflation" psychology, turning all money into goods as rapidly as possible, the "wild" type of inflation described by professor Schumpeter[3] which has afflicted other countries in past years, would come overnight to the U. S. Record levels of savings in all forms during the past two years indicate that this result is not likely.

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[1] N. J. Silberling in his *Dynamics of Business* (McGraw Hill, N. Y.; 1943) makes a thorough analysis of price trends over 200 years and concludes that prices show no trend, up or down, as a long term proposition. As will be shown later, though, there are many flaws which can creep into such analysis. Furthermore, it is likely the average individual is interested in prices over much shorter periods.

[2] See "U. S. Prophets Predict Drop in Capital Outlay; Major Boom Support." *Wall Street Journal*, May 15, 1952. p. 1, and the current report in *Survey of Current Business*, Feb. 1953.

[3] Clemence, R.V.A. *Essay of J. A. Schumpeter* (Addison Wesley Press, Cambridge, Mass., 1951) p. 240.

It should be obvious at this point that there is no clear cut case as to whether prices will continue upward or will turn downward. Certainly, great doubt has been cast upon the assumption held by many that prices will continue their uninterrupted rise for long periods in the future. At the moment of this writing it is generally felt that some setbacks in business are in store within a year. On the other hand it is doubtful that a great depression will necessarily follow World War II as has been the case after the Civil War and World War I, for the economy is much better equipped to handle depression problems today than formerly.

Some of the "bearish" factors listed above are highly tentative. For example, in point (2), private investment is unlikely to drop greatly unless government investment does likewise. It is doubtful if the Government will allow any sudden cutback in expeditures great enough to precipitate a major crisis.

The conclusion is, of course, that investors face problems of both rise and fall in the business cycle. Such swings may be more important than any long term trend that may be present. This is discussed later in Section V.

IV

How Has Inflation Affected Life Insurance Buying in the Past?

In spite of the deflationary factors cited above, it is probable that many will not be convinced that the basic trend of prices in the United States will be reversed shortly. It is likely that the average individual anticipates continued growth of the economy, and with it, constant upward trend of prices. Most of these people probably feel that there may be some temporary setbacks, but in general the long term outlook is optimistic. Prices have been rising for the last 50 years or more and few expect anything different.[2]

Yet have the investment patterns of individuals reflected a desire to save more in equities and less in bonds or life insurance during the past 50 years of rising prices? Has the inflation been recognized by enough people to cause a swing away from investment type life insurance contracts? While no complete analysis of these questions will be attempted here, certain evidence can be presented to indicate that the answer is probably "no" in both cases.

There have been some arguments presented tending to show a "trend toward term." One study of 50 companies in 1950 showed that in 1946 the percentage of term outstanding to total ordinary insurance was 16%; in 1948 the percentage had increased to 24%.[3] The Institute of Life Insurance, in the 1952 *Fact Book* reports that of the $234 billion of life insurance in force, $134 billion was made up of ordinary life, group term, regular term, and family income policies. This amounts to 57% of the total. There is no data readily available for past years, so no statement can be made about the trend. It is very doubtful however that this evidence actually shows the effect of inflation in life insurance buying. If 57% of the insurance in force is in contracts emphasizing term, considerably more than half of total premiums

[1] See Chart I.

[2] See *Bests Insurance Magazine*, Life Edition, April and May, 1950.

paid in represent payment for savings type policies, due to the much greater premium rate applying to those policies.

In addition, there are many factors affecting life insurance purchases other than price level changes. In the past, during rising or falling prices, there has been very little fluctuation in life insurance in force, or in premium income of life insurance companies. Both premium income and life insurance in force have shown remarkably steady growth in this country for over 50 years. The reasons for this are well recognized. Insurance buyers have a natural hesitancy to abandon a program they have kept up for savings purposes or as protection for dependents. Premiums are looked upon as an expense, and not as a voluntary payment. Experience shows that people scrimp on basic necessities in order to keep up their life insurance during bad times. And it is known that insurance programs are not as a rule given up because of rising prices. Indeed, the opposite is the case, since new purchases of insurance, and premium income of companies, tend to rise and fall with national income, although not in proportion.

This phenomenon explains also the lower proportion of national income being devoted to insurance today. The fact that people have less than one year's income covered today as compared to about one and one-half year's income in 1940 does not mean they are abandoning life insurance. Indeed, life insurance purchases in 1952 topped 1951 sales by 12%. It means that most of the fluctuation has been in national income, which has risen faster than life insurance purchases. People can save only out of incomes, and when income rises, it is normal for life insurance savings to increase, regardless of rising prices.

Furthermore, much of the increase in term insurance in the postwar period has been a result of union negotiation or voluntary purchases of group insurance by employers. Of the increase in life insurance sales between 1946 and 1951, about 35% was represented by group insurance, which is of course mostly term. This increase has been motivated at least in part by the desire to grant increased pay without raising wages as much as would be the case without such benefits. It is doubtful if it is indicative of a trend toward term insurance as a means to "hedge the inflation."

Therefore, it is improbable that individuals in the past have given the gradual inflation much thought in their plans for providing protection for dependents or for their own old age retirement.

V

The Buyer of Life Insurance and Future Trends

In spite of the fact that people in the past have probably tended to ignore inflation in their plans for life insurance, the question arises, "Should they, or will they do so in the future?" An analysis of this question may require answers to such inquiries as "What alternatives are there?" and "Are other short term movements in prices more important than the longer *trend* of prices?"

Some indication has already been given as to the uncertainty in any forecasts of the long term trend of prices. There is great disagreement among the experts as to this matter. One may wonder, therefore, what change the average person has in making a careful forecast of business activity and price levels before he makes a decision to invest.

The reply to this problem offered by many analysts would be somewhat along the following lines: Observation of any reliable index of prices shows an unmistakable upward trend for over a century. (Chart I shows the Bureau of Labor Statistics Index of consumer prices and the index of wholesale prices since 1820). While there have been interruptions, the trend is definitely upward, especially since 1900. Therefore, any investment in fixed income obligations is bound to lose purchasing power if held long enough. This is especially true of life insurance, which is ordinarily a life-time proposition. Futhermore, it is claimed, there is little reason to believe that the conditions which brought about this steady devaluation of our currency will be shortly eliminated. It will be observed in Chart I that the peaks in prices have accompanied each major war. This has been due to deficit financing in each case, and afterwards, prices have never returned to, or remained at, the level they were preceding the war.

Therefore, it is argued, in spite of short cyclical reverses, the trend of prices is not only up, but it is up at such a rate as to result in losses in capital value and in purchasing power of interest on savings. The implication is, of course, that any investment in dollar obligations, returning a fixed rate of interest, ought to be avoided.

This point of view cannot be dismissed lightly. It has occasioned much serious thought and writing in recent years. It is perhaps the central personal economic problem of our day. Nevertheless, there are several factors which weaken the analysis put forth above. These may be noted as follows:

(1) Initially, there is some indication that the gradual price inflation in this country is not as harmful a factor as may first appear. In the first place, the increase in prices tends to be exaggerated by a comparison of the indexes in Chart I. This is true because it is difficult to obtain proper comparisons between price levels fifty years ago and price levels today. The index cannot measure all prices, only selected ones. The consumer price index samples prices in cities, not in rural areas. The importance of various prices is constantly changing according to the importance of a given item in family budgets. Food occupies a smaller proportion of the budget today than before the war. Therefore the weights of various items may not be consistent or correct.

Furthermore, commodities and living standards change constantly.[1] The automobile, the home heating system, and the clothing of 50 years ago may cost about the same, or even less, today than they did in 1900, and yet they are usually far better products today than formerly. Therefore, has the real cost increased as much as the price? Likewise it is doubtful if the food budget of 1900, even if food prices had remained unchanged, would provide a satisfactory diet according to today's living standards, which have been rising steadily. And the "minimum" wardrobe is probably higher today than it was in 1900. Therefore it is unlikely that a retirement income designed to fit 1900 standards would be sufficient today. To put it differently, the retirement income satisfactory in 1900 would be inadequate in 1950 even if prices had not changed. Inflation gets blamed for it anyway.

In addition, it is sometimes forgotten that there may be some relation-

[1] For an excellent discussion of this topic see Mills, F. C. "Productivity and Economic Progress," National Bureau of Economic Research (3819 Broadway, N. Y.) 1952. Occasional Paper No. 38.

ship between price levels and the ability of an individual to make any savings at all. It is during the period of high prices that employment and income (and hence savings) are the highest. It is even argued by some that a constantly rising trend of prices is necessary for continued prosperity, and full employment.[1] Certainly high employment levels do not ordinarily thrive in our economy under conditions of declining prices. This is not the same as saying, of course, that declining price levels themselves cause unemployment, for they may be only a symptom of other basic underlying causes. It can be pointed out, nevertheless, that perhaps had not the conditions that caused the high prices been in existence, many would have been unable to make any savings at all, due to unemployment. The inflation may be one price that is paid for rising living standards and steady industrial progress.

(2) A second weakness in the "constant inflation" argument against dollar obligation investments is that it dismisses too lightly the swings in prices, up and down, over many years, that are evident in Chart I, where a smooth freehand curve roughly bisecting the data has been drawn in. A savings program accumulated steadily will represent some cheap and some dear dollars. Likewise, when it is liquidated in retirement payments, these payments may be made over some years of high prices, and some years of low prices. Consider, for example, the individual who may have saved money in life insurance all his working years from say 1900 to 1930, and then retired. This individual would have been able to spend his declining years in relative prosperity since his dollars would have had a relatively high purchasing power compared with their value during the period of accumulation. It is probable that these intermediate movements are more important by far to the insurance saver than the longer term trend (represented in Chart I by a straight line approximately dividing the raw data in two.) In the above case the individual no doubt gained much more by retiring just when he did, than he lost by a rising long term trend of prices.

It is just as possible for a person to lose by the action of these cyclical movements a good more than he would have by just a slowly rising trend of prices. There are many examples of this case today.

On the average, while the saver may not come out even over the long period, his losses are not as large as has been commonly believed.

(3) Perhaps one of the basic weaknesses of the argument that rising price trends will automatically ruin one's savings plan if such a plan is implemented by life insurance, or any fixed-income plan such as savings and loan shares, bonds, or mortgages, is the fact that it ignores the saver's practical alternatives. If one does not save in established institutions as life insurance companies or savings banks, the alternative apparently is for the individual to pursue a plan of investment in common stocks, real estate, or other "equity" type investments, whose value tends to rise and fall with other prices, and whose investment returns are normally at a higher rate, at least during good times.

For most individuals this is not a very practical alternative. Few people are qualified to do the necessary supervision or scientific selection of such an investment. Few would save for such investments at all since they don't

[1] "Sumner Slichter Bets Americans Will Choose Inflation." *Business Week* October 25, 1952. This is a good presentation of the essence of the point.

lend themselves to a systematic plan of saving, which for most people is a psychological necessity before saving will be accomplished. Such investments are of course subject to many hazards that an average person is ill-equipped to handle. Residential income property is subject to deteriorating neighborhoods, excessive taxation, and maintenance. Farm property is subject to the hazards of fluctuating agricultural prices, soil erosion, drought, poor methods used by tenant farmers, etc. As will be noted in the next section, investment funds are not a very satisfactory alternative.

These investments, and especially common stock investments, are all subject to swings of the market, the causes of which no one has been able to explain satisfactorily. Indeed, the complaints of those who suddenly realize the loss of purchasing power of their government bonds during the past ten years are feeble compared to the cries of those who lost everything practically overnight in the crash of 1929. The memory of this crash, in fact, has deterred widespread participation in the stockmarket to this day. Studies show that a relatively small proportion of people rely on stock ownership as an important method of saving.

Aside from the risk of capital losses that accompany every equity investment is the fact that income from such investments is often insufficient and too unstable for retirement purposes. Many factors have accounted for poor dividends on common stock. Typical are the double taxation of corporate income, the difficulty of raising equity funds in the open market, and the necessity for retiring large indebtedness incurred during the war.

It is when one considers the alternatives that the advantages of life insurance as a method of saving appear especially great. The saver has no investment responsibility. He is assured that his savings plan is safe. There are certain income tax advantages that help raise the effective yield of his investment. He has a guaranteed liquidity, at all times during the business cycle. He pays his premiums as he would any other "expense," and so the lapse rate is considerably below lapse rates attributable to other savings plans. Above all, he is able to combine such a savings plan with enough pure protection to guarantee its automatic completion in case of premature death.

To summarize, we have argued that while there is no doubt that inflation has eaten away at the value of savings programs invested in dollar obligations, this loss has not been as devastating as commonly believed. A good deal depends upon what period in the intermediate trend the individual retires. Furthermore, since the individual cannot forecast the future, and since he has no acceptable alternative to fixed income type investments, it is probable that he will continue the course pursued in the past.

VI

Possible Solutions

If what has been said so far is correct, there apparently is no immediate prospect that anything will develop on large enough scale to change materially the investment patterns of the average saver. If the past is any guide to the future, the swings in price levels noted in Chart I will continue. Many believe that some private solution must be found to enable those who retire at a disadvantageous time in the price cycle to find relief. Others think that a chronic inflation is the real danger, and that major reliance on dollar obligations as a means to retire carries with it certain disappointment.

Several plans have been discussed in recent years to meet the problems of inflation, high taxes, and lower investment returns in personal retirement programs. We shall examine the highlights of some of these plans in order to explore possible avenues for further investigation. No thorough analysis of any plan is contemplated in this article.

(1) Some of the weaknesses of the old argument that one should buy term insurance for his protection needs, and invest the difference in equities have been pointed out above. The average person lacks the ability to carry out a successful equities investment program on his own. In addition, he runs the hazard of capital losses over which he has little control.

(2) A variation of this plan has been that one could buy term insurance for protection and invest the difference in investment funds. The advantage is that he thereby obtains the safety of diversification of the fund coupled with the higher return and inflation protection of common stocks. The weakness of this plan is that the saver does not know how to choose the best or most suitable.[1] Further, in case he had to retire during one of the long downswings of the business cycle, he may find that his investment yield has been greatly reduced, or eliminated, and that he had suffered great capital losses. Many savers probably do not want to risk this.

(3) Another plan has been put forth by Professor Owen[2] in which it is argued that the most practicable solution is through group action. The employer's contributions to a group pension-insurance plan are ordinarily deductible for income tax purposes. The employer thus can provide a good deal more protection and saving for the premium dollar than can the employee. Futhermore, such savings are automatic, being withheld from the pay envelope. In addition some plans hold forth some protection to the employee against inflation, through combination with Federal Social Security, and through a promise for review in case inflation makes the proposed benefit unrealistic.

While these plans may help many individuals, they have the disadvantage of omitting from protection all those who are self employed, or whose employers are too small to set up such a plan. Too, there is no guarantee that an individual would have protection if he moves from one job to another. Another formidable problem is that the large funding requirements of an adequate plan generally preclude all but the largest employers from adopting sound programs.

(4) Much has been said in recent years about the life insurance companies themselves helping to alleviate the problem by investing a greater proportion of their funds in equities such as common stock or real estate. Laws have been relaxed in some states to allow this. For example, New York now allows companies to invest up to 2% of assets in qualified preferred stocks, 3% in common stocks, and 3% in income producing real estate, for a total of 8%. At the close of 1951, companies in New York had invested 5.3% of their assets in equities of this nature.[3]

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[1] The College Retirement Equities Fund (CREF) sponsored by the Teachers Retirement and Annuities Association is an interesting attempt to provide an opportunity for the saver to save partly in equities and partly in senior obligations.

[2] Owen, Henry T., "Revolution in Old Age Security Planning," *Journal of the CLU*, Sept., 1952, p. 333.

[3] Figures were derived from the New York Report of the Insurance Commissioner.

While this is a step in the right direction, it wold have to be carried much further before appreciable gains would accrue to policyholders. However, if companies invested up to 30% or more in equities, as some have suggested would be necessary to do much good, it might become difficult to guarantee liquidity of the insurance policy cash value, or to pay benefits in times of severe and extended depression, especially in the case of smaller companies.

To permit much appreciable change along these lines, most state laws would have to undergo basic revision. Rules as to valuation of common stocks would need overhauling. Insurance company management would have to alter its attitudes about the basic functions of life insurance, an unlikely thing, except perhaps over a long period of time. Most managements feel little obligation to protect the purchasing power of the saver's dollar. Most feel it is impossible for them to do so. Resistance to change is a powerful force, although it is clear that some change is badly needed to meet a difficult problem.[1]

(5) A solution that perhaps deserves some closer study is the use of a formula-timing device in producing better investment results over the swings of the business cycle. These plans have been in use for many years, and there is some controversy over their value.[2] There are many variants of formula investing, but the central idea is simple. An investment portfolio is divided into a certain proportion of equities and a certain proportion of senior securities. Stated upper and lower limits of prices, as measured by an acceptable stock price index, are set up. When prices in the market vary within these limits, the proportion of the portfolio invested in each type of security is varied to fit predetermined amounts. For instance, if prices rise near the upper limit, the percentage of the fund held in common stocks is reduced, and the percentage of bonds may be increased. This process is reversed if prices fall nearer the lower limit. In this way, capital gains are maximized and losses minimized over the business cycle.

If it were feasible for this plan to be operated by an insurance company, with its expert investment staff, it would perhaps give the average saver his first chance to combine protection with investment in a manner that would preserve purchasing power as well as maintain reasonable safety.

The primary advantage of formula investing is that forecasting the business cycle is made less necessary. Futhermore, it gives the saver a chance to participate, on a relatively safe basis, in the fortunes of some of America's finest companies, many of which issue no bonds at all.

(6) It has been felt by many that the only really satisfactory solution

[1] A list of arguments against common stock investments presented in *Investment of Life Insurance Funds*, edited by David McCahan, University of Pennsylvania Press, Philadelphia, 1953, outlines the case against equities and the attitude of life insurance management. Interestingly enough, a study of experience with common stocks by seven New England companies, reported in the volume, shows "over a period of years a fairly favorable and dependable income can be had from dividends of carefully selected common stock . . . The problem . . . appears to be one of finding a rational way of handling major variations in market values." (p. 207)

[2] For a good presentation of the pro's and con's of formula timing, see Warren, R. A., "Formula Plan Investing," Harvard Business Review Jan.-Feb., 1953, pp. 57-69.

to retirement in America is through an extension of the Federal Social Security program. To them such a solution has many advantages. In the first place, it would place upon the shoulders of government the problem of inflation, and this is only fair since governmental inflationary spending has been the chief agency responsible for the problem. Under Social Security retirement benefits can be increased through time so as to preserve purchasing power. Furthermore, it would cover almost everyone who works, and would place no restriction on freedom of workers to move about. Its safety would be backed by the taxing power of the government.

Opponents to this solution fear that such a step would only be another move toward centralizing all power in the federal government. They fear further encroachment on personal freedom. They doubt the economic practicability of such a plan because of the higher tax rates that would be necessary.

VII

Conclusions

(1) In the past, there is evidence that people have purchased life insurance for both retirement and protection purposes with remarkable consistency and with little evident consideration given to any existing long run inflation.

(2) However, it is true that all forms of dollar savings have suffered in value with the inflation, particularly since 1940. Life insurance savings cannot be said to constitute a "hedge" against inflation. The only type of life insurance that is in any sense a protection against such inflation is contained in those contracts emphasizing the term element. Such protection, of course, helps only death beneficiaries.

(3) In spite of the evident inflation in this country since 1900, savers probably haven't suffered as much from it as they have from the intermediate swings in prices that have accompanied the business cycle. In addition, there must be several other qualifications to the straight conclusion that long run inflation necessarily ruins a savings program that has been made in "fixed dollars."

(4) Even if the saver decided that the inflation was too devastating on fixed dollar investments, there are not many practical alternatives to such savings. For the average person, it is doubtful if he has any acceptable alternative. Among such savers, life insurance is still heavily favored, and it has many advantages that should not be overlooked.

(5) Life insurance companies have an opportunity and most of the qualifications to develop a solution to the problem of inflation through the use of investment funds and formula investing in combination with pure insurance. They have the necessary investment staff; they possess a going marketing organization; they enjoy the confidence of the investing public. There would probably be considerable interest among savers if such an opportunity were presented to them. However, strong and progressive leadership is necessary to overcome both the present legal obstacles and also the general opposition by most life insurance managements to such deviations from precedent.

(6) It is probable that the most likely development in the problem of inflation will be extended Social Security. At present, Social Security provides

only a minimum retirement benefit and for certain groups. Individual savings are supplementary. It may be that in the future, this situation will be reversed with the federal plan providing more than the minimum income, and individual private savings playing a more subordinate role.

The Nature and Methodology of the Insurance Survey Course

JOHN S. BICKLEY
The Ohio State University

A fundamental objective of business education is to develop in the student an ability to analyze business practices in terms of economic, social and political needs. Learning is not measured by the student's ability to recite facts or describe conditions as they exist, but rather by his understanding of the justification and significance of these conditions. The student should be led by the teacher to recognize cause and effect relationships and then to appreciate the need to validate these concepts through scientific testing or inquiry. The survey course in insurance offers an excellent opportunity to translate this educational goal into reality.

An approach to the subject of insurance from two distinct viewpoints permits the broad objective just indicated to be accomplished. The first of these involves an examination of the principles which should guide a person in handling his risk problems. This approach would include the identification of situations involving risk and the selection of the proper device for handling risks. Various means to reduce the cost of protection might be reviewed. Tests to be applied in the selection of an insurance can be examined. Finally, the provisions of the insurance contracts themselves might be analyzed to assist the student in judging the adaptability of various forms to hypothetical and actual needs.

A consumer's approach such as just indicated is argued by some to be below the proper level for university work. Those holding this view would hardly classify a course on Browning in this manner, although in a broad sense such study has as its purpose the guiding of the student to a greater understanding and appreciation of the poet. In the same sense, our insurance students are being brought to a clearer understanding and recognition of the role of insurance in meeting risk problems. The only essential difference is the aesthetic value of one course as opposed to the perhaps more practical value of the other. Browning is not taught by having the student memorize his works but rather by having him analyze the form and structure of the poems and their significance in the field of literature. Similarly, the insurance student should not be asked to memorize contract provisions but should be called upon to examine the theoretical and historical reasons for such provisions and to interpret how such contracts should be constructed to best serve the insured's needs. It might be added that the study of chemistry and other physical sciences entails a similar approach to the elements being examined in the particular course.

The second suggested approach is designed to give the student an understanding of the problems of insurers. While a survey course can encompass no detailed examination into the operational aspects of the insurance business, knowledge of the types and organization of companies, of the principles guiding the insurer in his selection of risks, and of loss adjustment techniques

will further understanding between the two parties to the contract. This approach also presents the student an opportunity to develop his analytical ability by appraising the validity of the insurers' operational procedures. The business student enrolled in such a course might be urged to apply the principles of business management he has learned in his other studies to test whether insurers are employing sound methods. Students specializing in economics may be led to consider the impact of investment policy, underwriting restrictions, and similar matters on the economy.

A dual approach of this character serves to develop the reasoning capacity of the student, while at the same time providing him skills which will be useful in the administration of his personal insurance affairs. It becomes obvious that a burden is placed on the teacher to avoid undue emphasis on the accumulation of facts. This does not mean that descriptive material can be eliminated, for analysis is only possible if facts are available upon which to base discussion. What must be avoided is the presentation of facts for their own sake.

A further advantage of the two-fold approach outlined is that it serves the needs of students with varying reasons for being enrolled. The majority plan to take no further work in this area. They are interested basically in learning to recognize their needs for protection and how insurance should be used to satisfy those needs. Of the remainder, some will enter the insurance field upon graduation, and so desire additional insurance courses, while others will elect additional work because of a special interest in some phase of the subject.

Nature of Survey Course

The principles of insurance course at The Ohio State University has long been taught along the lines of these two approaches. The primary emphasis is on the so-called consumer approach. The discussion is focused on answering those questions relative to the major types of insurance coverage which are most important to the prospective insured. Is insurance the most economical way to handle the particular risk under consideration? If so, for what amount should the contract be written? What obligations are placed on the insured by the terms of the agreement and what services other than loss settlement can be expected from the insurer? How much will be recovered in the event of a loss? This type of contract analysis enables the student who does not plan additional insurance course work to determine the adaptability of certain forms to his existing and potential needs for protection. Those students contemplating additional courses in this field will have learned a technique which can be applied to contracts to be discussed in advanced classes and will have the necessary background for a more detailed analysis of these forms.

The secondary emphasis in the principles course is on the internal and external problems of the insurers. This approach is employed in order to acquaint the student with the effect of insurance operations on the economic, social and political life of the community. In areas where serious problems have developed, the student is prompted to speculate as to how company policy might be altered to alleviate difficulties. This type of academic pursuit is of value to both the specialist and non-specialist as an inquiring attitude toward existing institutions is developed.

This study of the insurance business is directed to operational matters, such as underwriting, rate-making, and loss adjustment, as well as to the broader questions of company policy. For example, when the automobile in-

surance contract is being analyzed, the problems of obtaining adequate statistics for rate-making purposes are explored and attention is given to the effectiveness of safety responsibility laws as compared with compulsory liability insurance or the compensation plan. Too, the discussion of life insurance includes reference to such matters as the investment problems of the companies, the growing significance of group life insurance, and the economic justification of private pension plans as compared with a governmental system of universal pensions.

The introduction to the course includes a review of the principles guiding both the buyer and seller in the insurance transaction. Also, the conduct of the insurance transaction and the general nature of insurance contracts are reviewed, with particular attention to the many similarities between contracts in various fields of insurance. In the final periods of the survey course, attention is directed to methods by which the prospective insured can choose the insurer best suited to his needs, the importance of surveying or programming all insurance needs in order that the buyer might allocate his income most effectively as between the various types of insurance, and the effect of regulation on the insurance institution.

In view of the intensive nature of this type of approach to a survey course, it is evident that attention cannot be directed to all forms of insurance. It appears that the needs of the student are best served by restricting the discussion to the life, disability, property, and liability coverages which will most likely be a part of an individual's insurance program. Occasional reference is made to business coverages, but this is done merely to indicate the existence of such additional forms of protection and to illustrate certain principles and problems.

Methodology

The use of written problems and cases facilitates the combination of a detailed study of selected basic contracts with a review of the social and economic implications of insurance. Although this technique has been most fully developed by accounting teachers, it is equally applicable to insurance in that it assists the student in acquiring a proficiency in (a) computing the amount of needed coverage, (b) in determining the amount of his recovery in event of loss, and (c) in ascertaining whether his protection is effective under various circumstances.

Students are required to submit their answers to the problems two hours prior to class. The papers are then graded on the basis of a spot check of the questions which have been found to cause the greatest difficulty. Experience seems to indicate that actual grading is unnecessary as the correct or suggested solutions are developed through class discussion. The actual grading of the student's work can be based on written examinations. The primary purpose of the problems and cases is to raise the quality of the work done by students in their examinations. They have been extremely effective in achieving this goal. In view of the interest evoked by the problems, limitations on class discussion of the material are difficult to enforce. This is necessary, however, in order that a substantial amount of time may be devoted to a discussion of the various problems arising out of the coverage being analyzed. The major portion of the written work is based on the forms included in the kits provided by the Association of Casualty and Surety Companies, the National Board of Fire Underwriters, and the Institute of Life Insurance.

The use of problems and cases related to the contracts eliminates the necessity of a line-by-line discussion of the forms. The solution of many cases throughout the quarter or semester enables the student to work out a technique for reading contracts. He is thus able to satisfy his own curiosity as to detailed aspects of the forms without having to raise questions in class which are significant perhaps only to himself. This procedure does not suggest the memorization of large portions of the contracts, for testing can be keyed to determining the student's ability to analyze contracts with which he is familiar.

The course at Ohio State is taught on the basis of individual sections numbering approximately thirty-five students each. The instructional staff includes both senior men and graduate assistants. Generally two examinations are given prior to the final examination. Fifteen minute quizzes at intervals have been found to be useful in assuring that the students will keep abreast of the material, although such quizzes have been found to be less necessary since problems are assigned extensively.

Films are shown on one or two occasions a quarter. It has been found best to limit such showing to about thirty minutes so that class time is available for a discussion of the significance of the material shown. Whenever possible, charts and slides are used. The use of such visual aids might well be expanded but for the fact that few worthwhile materials have been developed by teachers themselves or by insurance companies or associations.

At times during the quarter, insurance men assist the instructional staff as lecturers or members of panels. We more frequently seek their participation in panel discussions as the students are thus exposed to a variety of viewpoints on certain current matters. Each member of the panel is given ten minutes for his presentation, with the remainder of the period devoted to discussion. Speakers are invited primarily for such controversial issues as catastrophic medical expense insurance, compulsory automobile liability insurance, or a review of the pros and cons of the agency system. Sometimes speakers are also invited to give a review of specialized topics such as insurance programming, loss adjustment, or insurance regulation.

Although the principles of insurance course is but one step in the overall program designed to increase public understanding and interest in insurance, it is vital both as a way of interesting students in this challenging field and as a foundation upon which further educational efforts can be based.

Part IV—Association Activities

Minutes of Annual Business Meeting

The business meeting of the Association was held December 29, 1953, at 4:30 P.M. in the Statler Hotel, Washington, D.C., President C. M. Kahler presiding.

The minutes of the last annual meeting, as printed in the March, 1953 issue of the Journal, were approved.

REPORT OF SECRETARY-TREASURER

The Secretary-Treasurer presented each member present with a copy of the financial statement showing the results of the operations during 1953. A copy of this report is reproduced on page——. By vote of the membership, the financial report was approved and ordered placed on file.

The Secretary then reported that the Association had 213 active members and 129 associate members, making a total of 342 dues-paying members for the year 1953. He indicated that the 1954 annual meeting would be held in Detroit, and that New York City had been selected for the meeting to be held in December, 1955.

REPORTS OF COMMITTEES

Dr. Loman, reporting for the Committee on Collegiate Preparation for Business Careers, recommended (1) that the standing sub-committee on life insurance be discontinued, and (2) that the program for the 1954 Meeting include papers and discussions dealing with requirements for persons majoring in insurance, with special emphasis on the specific subject matter studied by such majors, together with experiences in teaching insurance courses at an advanced level on the "line" as compared with the "functional" basis. It was moved, seconded and passed that the report be accepted and its recommendations be carried out.

Dean Graebner reported for the Committee on Insurance Teaching Aids. He stated that his Committee had failed to get all industry approval of a kit, as was suggested at the 1952 Annual Meeting. The Committee is continuing in its efforts to develop such a kit and in the meantime, has given its approval to a kit which is being prepared by the American Mutual Alliance. The Committee recommends that a survey of the membership be made during the year 1954 to determine how the kits are being used and to secure suggestions for making them more useful. The report, together with the recommendation, was accepted by the members present and the Committee was instructed to report on this project at the 1954 Annual Meeting.

Dr. Loman then reported for the Committee on Insurance Company Fellowships. He stated that the Co-ordinating Committee, consisting of representatives from the American Association of Casualty and Surety Companies, the American Mutual Alliance, the National Board of Fire Underwriters, and the Life Insurance Agency Management Association, together with two members of this Association, had rejected a proposal to extend the Fellowship plan to include college teachers irrespective of previous knowledge of insurance. He reported also a recommendation of the Committee to the effect that teachers

wishing to obtain Fellowships should not enter directly into pre-negotiations with insurance companies and thus attempt to by-pass the Co-ordinating Committee. It was moved, seconded and passed that the report be accepted and the recommendations approved.

ELECTION OF OFFICERS

Dr. Bickley, Chairman of the Committee of Tellers, reported that the slate of officers presented by the Nominating Committee had been elected as a result of 110 ballots cast by the active members. Therefore the following nominees were declared elected for the year 1954: Laurence J. Ackerman, President, Hampton H. Irwin, Vice President, William T. Beadles, Secretary-Treasurer, Davis W. Gregg, Member of the Executive Committee, term to expire in 1956.

The following acknowledgments were moved, seconded and passed: to the Committee on Local Arrangements, of which Professor J. Donald Watson served as Chairman, to the Program Committee, of which Dean Ackerman was Chairman, to the American College of Life Underwriters and the American Institute for Property and Liability Underwriters for the complimentary breakfast, and to all those who participated on the program.

There being no further business, President Kahler declared the 1953 Annual Business Meeting of the Association adjourned.

MINUTES OF EXECUTIVE COMMITTEE MEETING

Because of the fact that the Annual Business Meeting was conducted under rather severe time pressure, it was not possible to present to the members present at that time a report of the Executive Committee Meeting which was held at 2:30 P.M. on December 29, 1953. A report of the action of that Committee follows. Those present were President Kahler, Vice President Ackerman, Secretary Beadles and Committee members Abbott and Graebner. Also present were Drs. Kulp and Blanchard, representing a Special Committee which had been appointed to report to the Executive Committee.

PROPOSED CHANGES IN CONSTITUTION

Dr. Kulp reported for the Special Committee which was composed of himself as Chairman and Professors Blanchard and Gaumnitz. The Committee recommended that the Constitution of the Association be changed so as to provide for an Editor who, as an officer, would be a member of the Executive Committee. The recommendation included the paying of one hundred dollars a year to the Editor for his services and provided for the formation of an Editorial Committee to establish policies and to give advice to the Editor. The committee proposal was adopted unanimously and the Secretary was instructed to submit the proposal to the membership for approval in accordance with the Constitution.

President Kahler presented a proposal for amending the Constitution with regard to the procedure for nominating and electing officers. This proposal was approved unanimously and the Secretary was instructed to submit it to the membership in accordance with the Constitution.

APPOINTMENTS

Dr. Loman was designated as the Official Representative of our Association to the Council for Professional Education for Business. Dean Graebner was selected as the Alternate Representative.

PLACEMENT SERVICE

In view of the dissatisfaction expressed by several members concerning the handling of the employment seeking and finding function at the Annual Meeting, the Secretary was instructed to report such dissatisfaction with the USES handling of the situation to the Committee which will be in charge of the joint program next year.

The Executive Committee then proceeded to set up its own plan for assisting in placement. Mr. Beadles was chosen to set up a placement service for the membership and to operate it during the coming year. The Executive Committee is to serve as a placement committee in giving advice and counsel for this project.

ELIZUR WRIGHT AWARD

It was agreed that publications within the preceeding year would be eligible for consideration for the 1953 Elizur Wright Award. The Secretary was instructed to forward to the membership a request for suggestions for this award. The members may nominate the author or authors of any insurance publication during 1952 or 1953. Hereafter, such requests for nominations are to accompany the mailing of the annual ballot.

Professor Blanchard agreed to assist the Executive Committee by preparing a proposed form and copy for the certificate which is to be presented to the winner of the Elizur Wright Award.

WEST COAST REGIONAL MEETING

The President and Secretary reported on the Regional Meeting which was held on the West Coast in the fall. It was agreed unanimously that the plan for such meetings should be encouraged.

There being no further business, the meeting was adjourned.

TREASURER'S REPORT

January 1 to December 31, 1953, incl.

INCOME

Cash on hand, January 1, 1953			$2,862.68
Collected by J. Edward Hedges			1,013.55
Turned over to present Treasurer by Hedges			$3,876.23
Collected by present Treasurer:			
Membership Dues			
1953	$675.00		
1954	960.00	$1,635.00	
Sale of Journals			
1953	191.80		
Others	152.00	343.80	
Advertising in 1953 Journal			
Prentice Hall	$ 51.00		
Spectator	45.00		
Macmillan	45.00		
Rough Notes	90.00		
Alfred M. Best	45.00		
New York Life Insurance Co.	45.00		
McGraw Hill	45.00		
Richard D. Irwin	45.00		
University of Pennsylvania Press	45.00		
United States Review	25.00	526.00	
Total income receipts by present Treasurer			2,504.80
Total cash			$6,381.03

DISBURSEMENTS, Current Fund

1952 Annual Meeting Expenses	$ 107.41	
Pantagraph Printing & Stationery Co.		
Invoices Envelopes	79.80	
600 Journals and Postage	1,173.03	
Deposit in Savings & Loan Association	2,000.00	
Miscellaneous Expenses of Secretary-Treasurer	283.27	
Total Disbursements		$3,643.51
Cash on hand, Current Fund, December 31, 1953		$2,737.52

CONSTITUTION

Adopted by The American Association of University Teachers of Insurance
December 28, 1932

And amended December 27, 1934, April 24, 1936, January 1, 1940, December 29, 1947 and February 10, 1954.

I. NAME

The name of this Association shall be The American Association of University Teachers of Insurance.

II. PURPOSES

The purposes of the Association shall be as follows:

A. Promotion of insurance education.

B. Encouragement of research in the insurance field.

C. To provide an open forum for scientific discussion of all kinds of insurance.

1. The Association will take no position as an organization on any insurance problem nor will it be in any way responsible for the expression of opinion of any one of its members.

D. Publication of such material as may from time to time seem appropriate in forwarding the general purposes of the Association.

E. Cooperation with other American organizations interested in whole, or in part in insurance education.

F. Cooperation with similar organizations in foreign countries.

III. MEMBERSHIP

A. Membership in this Association shall be of three kinds:

1. *Active*—Any person who, at the time he originally applies for membership or at the time he requests reinstatement of a membership previously lapsed, holds a teaching appointment in an accredited college or university in the United States or Canada, and who is offering for degree credit one or more graduate or undergraduate courses devoted entirely to insurance (including insurance law and actuarial science), shall be eligible for active membership in the Association.

2. *Associate*—Any person not eligible for active membership who (1) is or has been engaged in teaching classes of insurance, or (2) has or has had as his primary responsibility supervision of the formal insurance training or education of agents, or (3) has or has had as his major assignment, actuarial, research, or statistical duties in the field of insurance. Associate members shall not have the right to vote or to hold office, except as hereinafter provided.

3. *Honorary*—Any person who is not a citizen or resident of the United States or Canada, and whose activities have contributed substantially to the advancement of insurance education, may, upon recommendation of the Executive Committee, be elected at any annual meeting, to honorary membership in this Association. Honorary members shall not have the right to vote or to hold office.

B. Questions of membership eligibility in individual cases shall be decided by the Executive Committee.

C. Guests may be invited to participate in the deliberations, or to be present at the meetings of the Association, at the pleasure of the Executive Committee.

IV. OFFICERS

A. Officers of the Association shall be a President, Vice-President, Secretary-Treasurer, and Editor of the Journal. Each shall perform the customary duties of such officers. All shall serve for a term of one year or until successors are elected, except that the Editor of the Journal and his successor shall be appointed by the Executive Committee.

B. There shall be an Executive Committee consisting of the officers, the immediate past-president, and three additional members, one of whom may be an associate member.

C. 1. A Committee on Nominations, consisting of three active members shall be appointed before the Annual Meeting by the President, with the approval of the Executive Committee. The Committee on Nominations shall make nominations for the offices of President, Vice-President, Secretary-Treasurer, and members of the Executive Committee. A Committee of Tellers, consisting likewise of three active members, shall be appointed by the President at the annual meeting; the duty of this committee shall be to tabulate all votes and report the results of the election.

2. Nominations shall be prepared and mailed to the active membership of the Association on or before December 1, with a return envelope addressed to the Secretary; additional nominations may be made by any group of three or more active members who shall prepare, sign, and forward their nomination(s) to the Nominating Committee no later than November 10 prior to the Annual Meeting. The Nominating Committee shall then send ballots containing the the original and additional nominations without delay to all active members. All ballots, to be judged legal, must be received by the Secretary at least seven days prior to the Annual Meeting, and both the voter and the nominee must have paid their dues for the current year. The Executive Committee shall prescribe the method of signing and counting the ballots so as to keep the balloting secret.

3. If there is only one nominee for each office, a report of the Nominating Committee shall be mailed to the members, and at the Annual Meeting each member so nominated by the Nominating Committee shall be declared elected.

4. The President or Vice-President may serve for not more than two consecutive years in the same office.

D. The three additional members of the Executive Committee shall be elected in the manner prescribed in Section C, and shall serve three years.

1. At the first election of members of the Executive Committee one shall be chosen for a one-year term, one for a two-year term, and one for a three-year term.

E. There shall be an Editor of the Journal whose function shall be (1) to collect for publication the papers presented at the Annual Meeting or at any interim meeting; (2) to invite and encourage members of the Association and others to contribute for publication in the Journal articles and studies of a professional and scholarly character; (3) to supervise in all details actual publication of the Journal; (4) to perform such other activities as are normally associated with the duties of an editor.

F. A committee of three members shall be appointed annually by the President to serve as an Advisory Council to the Editor of the Journal in the preparation and publication of the Journal. Among other duties, the Committee shall aid the Editor in the evaluation of the contributions for publication purposes and in the determination of questions of editorial policy.

V. MEETINGS

Meetings shall be held annually on the same dates as are adopted by the American Economic Association and/or the American Statistical Association for their annual meetings. These meetings shall be held in the same place as those of the American Economic Association and/or the American Statistical Association unless considered impracticable by the Executive Committee, which may adopt a more convenient place of meeting.

VI. QUORUM

A. Ten active members of the Association shall constitute a quorum for the transaction of any kind of business at the annual meeting.

B. Twenty active members shall constitute a quorum for the transaction of any kind of business at other than annual meetings.

VII. DUES

The annual dues shall be determined by the Executive Committee and shall be billed for the calendar year. They shall not be more than $5.00.

VIII. EXPENSES

A. The Association shall pay the necessary expenses of conducting the office of the Secretary-Treasurer and that of the Editor of the Journal. It shall furnish such stationery as is necessary for other officers, and may incur such other expenses as are authorized by the Executive Committee.

B. The fiscal year of the Association shall be the calendar year.

C. In no event shall the Association incur annual expenses in excess of the aggregate annual dues of the members, except by authorization of the membership at an annual meeting or at a special meeting.

IX. AMENDMENTS

The Constitution and/or By-Laws may be amended by submitting the amendment, signed by at least two-thirds of the members of the Executive Committee, to the members of the Association by mail, who shall either ratify or reject the amendment by communication in writing, to the Secretary; such amendment to be regarded as ratified in the event that two-thirds of the votes received within three weeks of the date on which the copy of the amendment is forwarded to the membership shall be in favor of such amendment.

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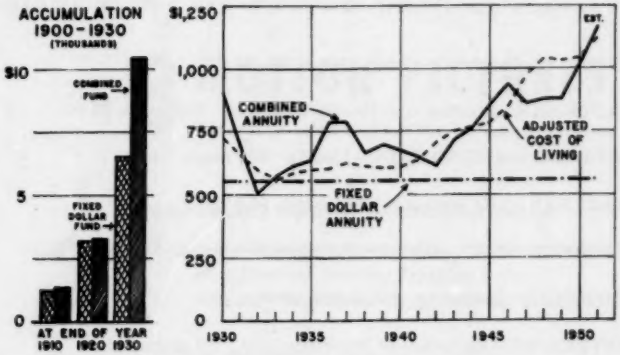

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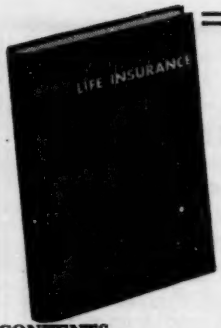

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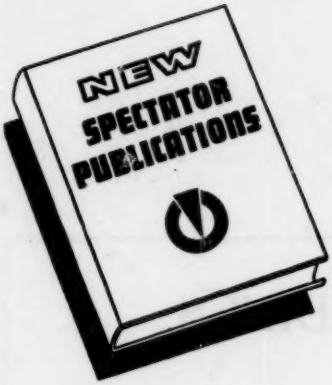

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